Foreign Missions Center at the Former Walter Reed Army Medical Center

Draft Environmental Impact Statement

U.S. Department of State
January 2014
Washington, D.C.
DOS-DC-EIS-14-01-D

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The U.S. Department of State (DOS) proposes to develop a Foreign Missions Center (FMC) on the northwest portion of the former Walter Reed Army Medical Center on 16th Street in Northwest Washington, DC. DOS is seeking to obtain approximately 43.5 acres from the Army to redevelop the site for the construction of new chancery buildings by foreign governments. DOS is able to acquire land under the Foreign Missions Act of 1982 (U.S.C. 4301-4316), which facilitates the conduct of diplomacy and consular operations between the United States and foreign governments.

This Environmental Impact Statement (EIS) was prepared in accordance with the National Environmental Policy Act 42 U.S.C. 4321-4347 and examines the potential environmental impacts of a "no-action" alternative and six alternatives to develop the FMC. The purpose of this EIS is to provide DOS, other agencies, and the public with a full accounting of the potential environmental impacts prior to decision-making. It serves as the primary document to facilitate review of the proposed action by federal, District of Columbia, and local agencies, and the public.

After careful consideration of a range of reasonable alternatives DOS has identified an action alternative that it believes would best satisfy the purpose and needs of the study, would fulfill its statutory mission and responsibilities, and has the least adverse environmental impact.

Comments on this Draft EIS are due by March 31, 2014 and should be sent to the address below.

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1/28/14

Adam H. Bodner, Director
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U.S. Department of State

Date of Approval

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EXECUTIVE SUMMARY

The Department of State (DOS) is the federal executive agency responsible for the international relations of the United States. DOS has a number of domestic and international responsibilities associated with the establishment and operation of foreign missions in the United States. DOS is responsible for assisting foreign missions with identifying properties on which they may locate and operate chanceries in the United States.

The availability of adequate space for the construction and operation of chanceries by foreign missions has been a long-standing challenge in Washington, DC. In anticipation of needing to develop another site similar to the International Chancery Center (ICC), DOS undertook a multiyear evaluation of available land parcels within Washington, DC and concluded that the former Walter Reed Army Medical Center (WRAMC) site was best suited to support the Foreign Missions Center (FMC) concept.

PROJECT OVERVIEW—for additional information, see DEIS section 1.1

Proposed Action—for additional information, see DEIS section 1.2

The proposed action is to prepare a Master Plan for the long-term development of a FMC on approximately 43.5 acres of the former WRAMC site at 16th Street, between Aspen Street and Alaska Avenue in Washington, DC (exhibit S.1). The proposed action consists of assignment of federal land to foreign governments for the purpose of constructing and operating new chancery facilities. DOS would manage the FMC, including maintaining common areas. In support of the Master Plan, design guidelines are being developed to assist foreign missions with the development of lots. Each foreign mission design would be subject to the local jurisdictional approval process for the design and construction of its facilities.

The proposed FMC was conceptually planned to complement the campus character and be consistent with current and future adjacent land uses by:

1. Designing each lot access point to be placed on internal roadways of the campus;

2. Allowing public access to the public areas within the site;

3. Developing a reuse program for one historic building including the potential for reuse of other historic buildings;

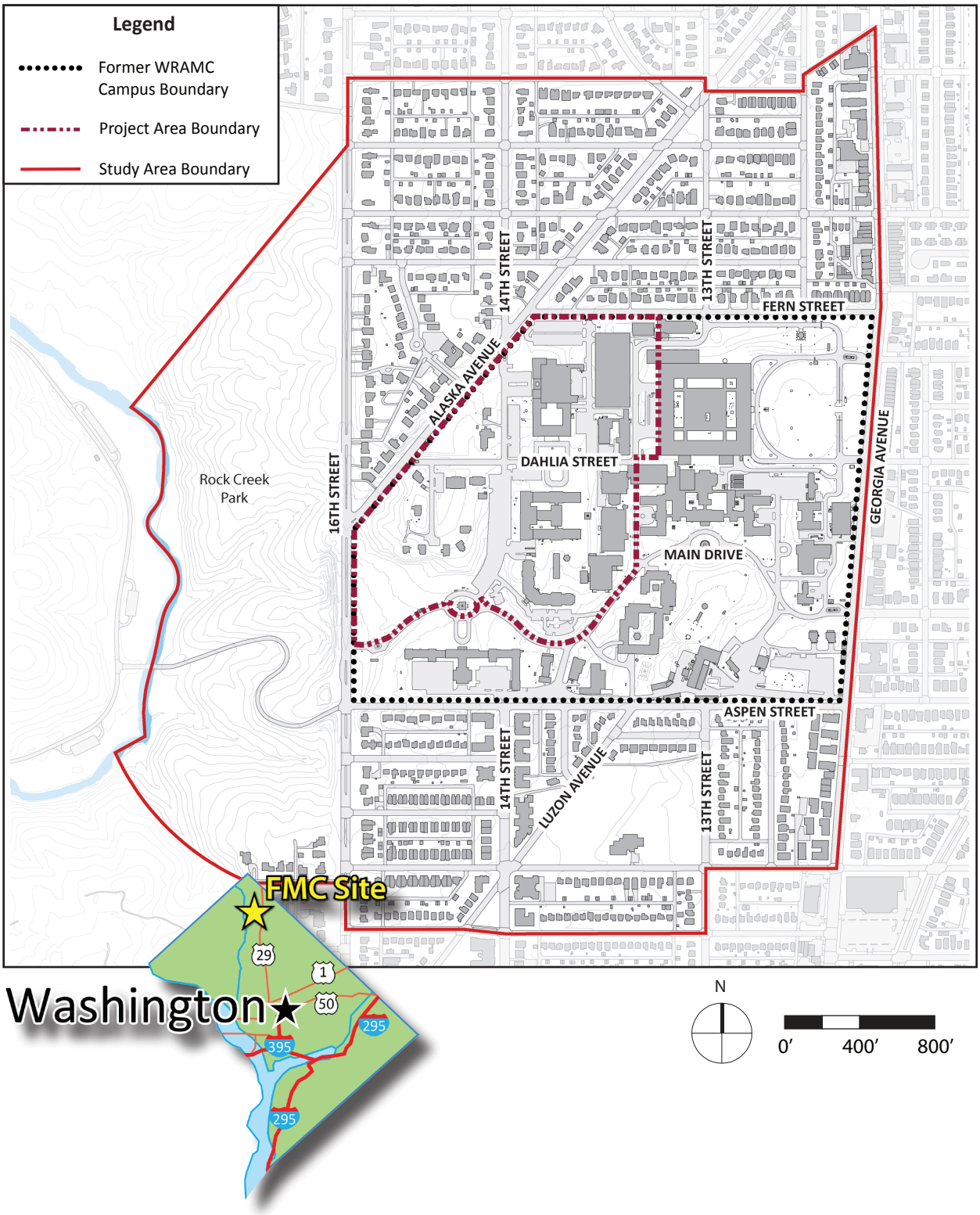
4. Maintaining a 30-foot setback between the southern boundary of the site and historic Main Drive;

5. Emphasizing vehicular and pedestrian connections between the DOS portion and the adjacent land uses;

6. Maintaining a 50-foot vegetated buffer on the west boundary of the site; and

7. Preserving the tree canopy to the maximum extent possible.

Exhibit S.1 - *Study Area*



Although the potential exists for 24 individual lots, DOS anticipates 10 to 15 chanceries to be established at the FMC, as countries would have the option to combine multiple lots if desired. The lots would range in size. The lots south of Dahlia Street are envisioned to be larger with the expectation that foreign missions assigned to that area may construct several buildings, creating a compound. The lots north of Dahlia Street are envisioned to be closer together, creating a more urban-like density. Each foreign mission would be responsible for meeting all parking needs (employee and visitor) on its individual lot. Street parking on the internal FMC roadways will not be permitted. Specific lot development restrictions (such as minimal building setbacks, building lot coverage, maximum building height, and floor to area ratio) would be dependent upon the lot's location.

Foreign missions would fully fund DOS's upfront infrastructure development costs through the revenue generated by the assignment of the lots. Cost effectiveness measures for the FMC include maximizing the number of lots available for assignment, re-using existing roadway locations, and minimizing maintenance-intensive public features. To allow for cost-neutral funding, the proposed action envisions implementation in phases over approximately 20 years; funds from one phase would help finance the development costs for the next phase. The phased approach would optimize lot size and site design flexibility.

Purpose—for additional information, see DEIS section 1.3

The purpose of the proposed action is to prepare a master plan for the long-term development of a Foreign Missions Center, under authorities of the Foreign Missions Act of 1982, on the site of the former WRAMC in the District of Columbia. The master plan is intended to guide the development of a cohesive campus by establishing design and land-use planning principles for the construction of new buildings, roadways, open green space, and utilities, while minimizing environmental impacts.

Need—for additional information, see DEIS section 1.3

The need for the proposed action is based on increased and high demand for foreign mission facilities in the District of Columbia, a lack of large sites for foreign mission development or redevelopment in the District, and the need for land to use in property exchanges with other countries. This scarcity has impacted DOS's ability to acquire properties in foreign capitals.

DOS has an urgent need to meet the demand from foreign missions for modern and secure facilities within the nation's capital. The collapse in the 1990s of both the Soviet Union and Yugoslavia resulted in the creation of 21 new countries. Further, the rapid growth and prominence of countries such as Brazil, China, India, and Vietnam has had a significant impact on the diplomatic presence of such governments, as well as on DOS's reciprocal presence and operations in those countries.

In accordance with the Foreign Missions Act, DOS enters into property exchange agreements with other countries, whereby property is provided to foreign governments for the establishment

of missions in exchange for DOS receiving similar property within their countries. However, the lack of suitable land for development or redevelopment and a full ICC have inhibited DOS's ability to reciprocate.

DOS has a need to resolve stalled attempts to acquire property in certain countries to construct adequate and secure facilities for the conduct of American diplomacy and consular operations.

SCOPING AND EARLY COORDINATION—for additional information, see DEIS sections 1.7 and 4.1

Scoping letters were mailed in June 2012 to agencies with jurisdiction over features in the study area or an interest in the study and its results, in accordance with the procedural provisions of National Environmental Policy Act (NEPA) and the DOS's requirements and policies for early coordination.

A public scoping meeting was held July 19, 2012, in the District of Columbia. It was an open house with displays, a presentation, and an area for public comments and questions to be submitted for consideration in the planning of the proposed action and preparation of the EIS. During the 30-day scoping period, the key issues of concern identified by the public were the preservation of trees and open space, traffic impacts, noise impacts, historic preservation and security.

The master plan study was developed in conjunction with federal and district agencies with jurisdiction over features or an interest in the study area through a series of meetings.

In compliance with Section 106 of the National Historic Preservation Act of 1966 (NHPA), consulting parties were identified to consult on potential effects to historic resources and measures to minimize and mitigate them. Consulting parties included the DC-HPO, NCPC, ACHP, The Committee of 100 on the Federal City, and The Alliance to Preserve the Civil War Defenses of Washington.

ALTERNATIVES RETAINED FOR FURTHER CONSIDERATION—for additional information, see DEIS section 2.3

The DOS identified, developed, and analyzed the No Action Alternative and six action alternatives that could potentially satisfy the proposed action's purpose and needs. Alternatives were developed through collaborative planning and design work sessions with other federal and district agencies with direct or indirect jurisdiction over the proposed action, or an interest or special expertise, at key milestones to receive feedback and suggestions for improvement.

Components common to the action alternatives consisted of cost-neutral funding, phasing, a minimum 50-year design life for utilities, on-lot stormwater management, parking considerations, and street design. Site and individual lot development parameters (size, floor area ratio, building coverage and height restrictions) developed for each campus zone would not vary between the

action alternatives. Under the action alternatives, the existing historic perimeter fence would be retained and the existing landscape on the west boundary enhanced to create a vegetated buffer, and maximize the tree canopy in this area. Access points for individual lots would be placed on internal roadways.

During the alternatives development process, six action alternatives were considered and five were dismissed. One action alternative and the No Action Alternative were retained for further consideration and more detailed analysis.

DOS identified a Preferred Action Alternative, which it believes would best fulfill its statutory mission and responsibilities, while giving consideration to economic, environmental, technical and other factors. In identifying its Preferred Action Alternative, DOS believes it has identified the environmentally preferable alternative because it best meets the purpose and needs of the study; causes the least damage to the biological and physical environment; and best protects, preserves, and enhances the historic, cultural, and natural resources of the study area.

The No Action Alternative—for additional information, see DEIS section 2.3.1

Under the No Action Alternative, DOS would not take ownership of the 43.5 acre portion of the former WRAMC and would not create a master plan to develop the FMC. DOS would continue to face challenges in facilitating the provision of adequate and secure facilities for foreign missions. The lack of readily available parcels within the District of Columbia for the development of foreign mission facilities would persist, and the high demand for foreign mission facilities would continue to grow. DOS's inability to reciprocally acquire properties in other countries would increase, and delays in updating U.S. diplomatic and consular properties abroad to meet modern security requirements would continue.

The No Action Alternative was retained for detailed study and the consequences of the No Action Alternative were fully developed for the year 2032 to demonstrate the full impact of taking no action. This provides a baseline comparison with the action alternatives. The year 2032 represents the completion of the planned build out of the FMC over a 20-year period beginning with the initiation of the EIS process in 2012.

Alternative 1: Preferred Action Alternative—for additional information, see DEIS section 2.3.2

Alternative 1 was identified as the Preferred Action Alternative because it furthers the purpose of the project and satisfies the needs for the project while best maintaining and enhancing the existing site character of the former WRAMC; addressing community concerns raised during scoping; minimizing potential impacts to cultural resources; and maximizing marketability by allowing the greatest flexibility in developing the site (exhibit S.2).

The Preferred Action Alternative would provide up to 24 lots for chancery development. In the northwest quadrant, historic Building 57/Memorial Chapel would be retained for adaptive reuse.

Exhibit S.2 - *Preferred Action Alternative*

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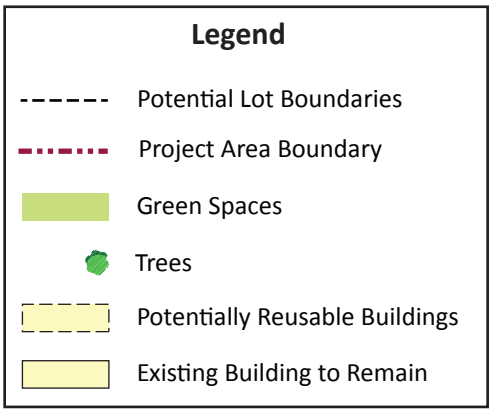
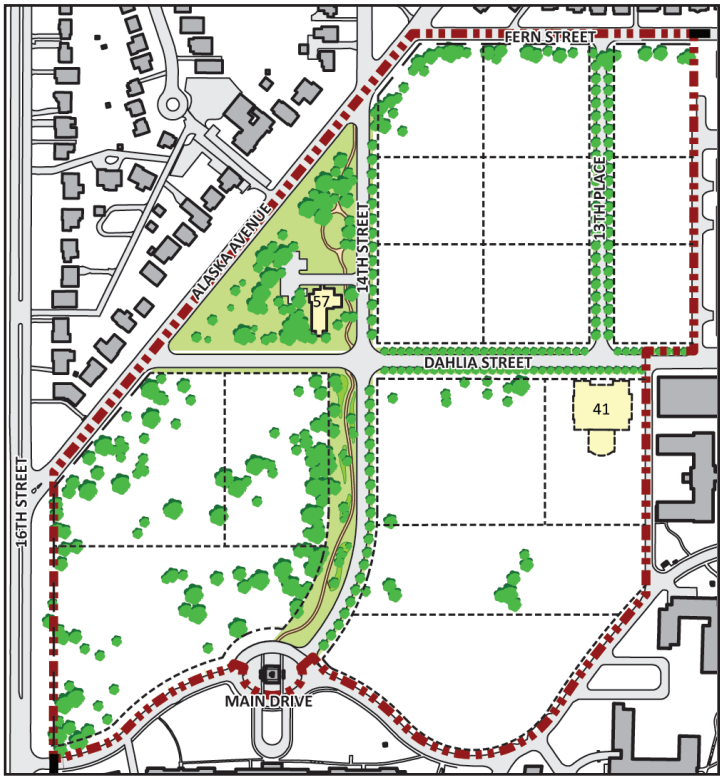
Exhibit S.2 - *Preferred Action Alternative (Continued)*





Variation: Center 13th Place on Building 41

Variation: 13th Place remains in existing alignment

Green space would surround the chapel and existing trees of good condition in the quadrant would remain undisturbed.

On the eastern portion of the site, historic Building 52/Medical Warehouse and Clinic, historic Building 40/Walter Reed Army Institute of Research, and historic Building 41/Old Red Cross Building could remain for potential adaptive reuse, depending on marketability. The location of 13th Place would either remain the same, or be moved slightly to the east to align with Building 41, which would require the provision of a new entry in the existing perimeter fence. These variations for 13th Place provide flexibility to adjust parcel sizes to support the marketability and programmatic requirements of interested foreign missions.

Under the Preferred Action Alternative, Dahlia Street and 14th Street would be developed as boulevards supporting pedestrian, bicycle and vehicular traffic connections to the surrounding neighborhoods. In the southwest quadrant, the boulevard landscaping bordering 14th Street would be widened to create green space, replacing the existing parking lot. This low-lying green space would assist with the filtration of rain water runoff from the FMC and support DC stormwater management practices.

ALTERNATIVES CONSIDERED BUT ELIMINATED FROM DETAILED STUDY—**for additional information, see DEIS section 2.5**

Exhibit S.3 summarizes the evaluation criteria for all alternatives and the reasons why these five action alternatives were dismissed from further consideration and detailed study.

Exhibit S.3 - *Alternatives Dismissed*

Evaluation Criteria	*Alternative 2*	*Alternative 3*	*Alternative 4*	*Alternative 5*	*Alternative 6*
Maintains and enhances the existing site character	Maintains historic campus character. Provides strong east-west connection between DC-LRA and FMC portions of WRAMC	Maintains historic campus character. Provides strong east-west connection between DC-LRA and FMC portions of WRAMC	Maintains historic campus character. Provides strong east-west connection between DC-LRA and FMC portions of WRAMC	Maintains historic campus character. Provides strong east-west connection between DC-LRA and FMC portions of WRAMC	Maintains historic campus character. Provides strong east-west connection between DC-LRA and FMC portions of WRAMC
Addresses community concerns raised during scoping	Would create unsafe traffic pattern Greater loss of significant trees	Greater loss of significant trees	Would create unsafe traffic pattern Greater loss of significant trees	Inefficient vehicular connectivity between FMC, neighborhoods and street connections	Would create unsafe traffic pattern Greater loss of significant trees
Minimizes cultural resource impacts	Greater negative visual impact to Historic Building 57/Memorial Chapel	Greater negative visual impact to Historic Building 57/Memorial Chapel	Reduces reuse potential of Historic Building 41/Old Red Cross Building	Greater negative visual impact to Historic Building 57/Memorial Chapel	Greater negative visual impact to Historic Building 57/Memorial Chapel Reduces reuse potential of Historic Building 41/Old Red Cross Building
Maximizes marketability by allowing the greatest development flexibility.	Reduces marketability: site layout lacks front door presence for lots, and green space located where it would be perceived as private.	Reduces marketability: site layout lacks front door presence for lots, and green space located where it would be perceived as private.	Reduces marketability: provides uniform lot sizes that lack flexibility for foreign missions to purchase multiple adjacent lots.	Reduces marketability: less desirable street frontage available and few parcels oriented to green space.	Reduces marketability: less desirable street frontage available and few parcels oriented to green space.

AFFECTED ENVIRONMENT AND IMPACTS TO THE NATURAL AND SOCIAL ENVIRONMENT—**for additional information, see DEIS section 3.0**

DOS developed a study area of approximately 350 acres for the consideration of potential impacts to the social and economic environments in the area; a smaller area was used for the consideration of potential impacts to the natural environment. The study area not only covers

the land that would be used for the Preferred Action Alternative, but also the area that would potentially experience direct, indirect, and cumulative impacts from it.

Vegetation—for additional information, see DEIS section 3.3

A detailed tree inventory of the area potentially affected by the Preferred Action Alternative was performed; approximately 700 trees were identified, and the tree sizes were recorded by diameter at breast height (dbh) measured 4.5 feet above the ground (exhibit S.4).

The No Action Alternative would not impact vegetation.

The Preferred Action Alternative includes the preservation of a considerable number of Special Trees providing canopy coverage and a 50-foot wide vegetative buffer along Alaska Avenue and Fern Street. The Preferred Action Alternative would impact vegetation by removing trees.

The removal of trees in the District of Columbia is regulated by the Urban Forest Preservation Act of 2002. As a federal agency, DOS is not required to comply with this District of Columbia regulation; however, it will emphasize retaining the tree canopy in the development of the site.

Traffic and Transportation Facilities—for additional information, see DEIS section 3.6

The streets in the study area are generally designed as a grid pattern, with a few roads that bisect the network diagonally. Intersections are at regular intervals and most streets in the study area provide two-way travel. The street network provides good traffic circulation throughout it, allowing for multiple routing options for drivers and dispersing vehicles throughout the study area. The primary streets in the study area are: 13th Street, 14th Street, 16th Street, Alaska Avenue, Aspen Street, Dahlia Street, Fern Street, Georgia Avenue, and Luzon Avenue.

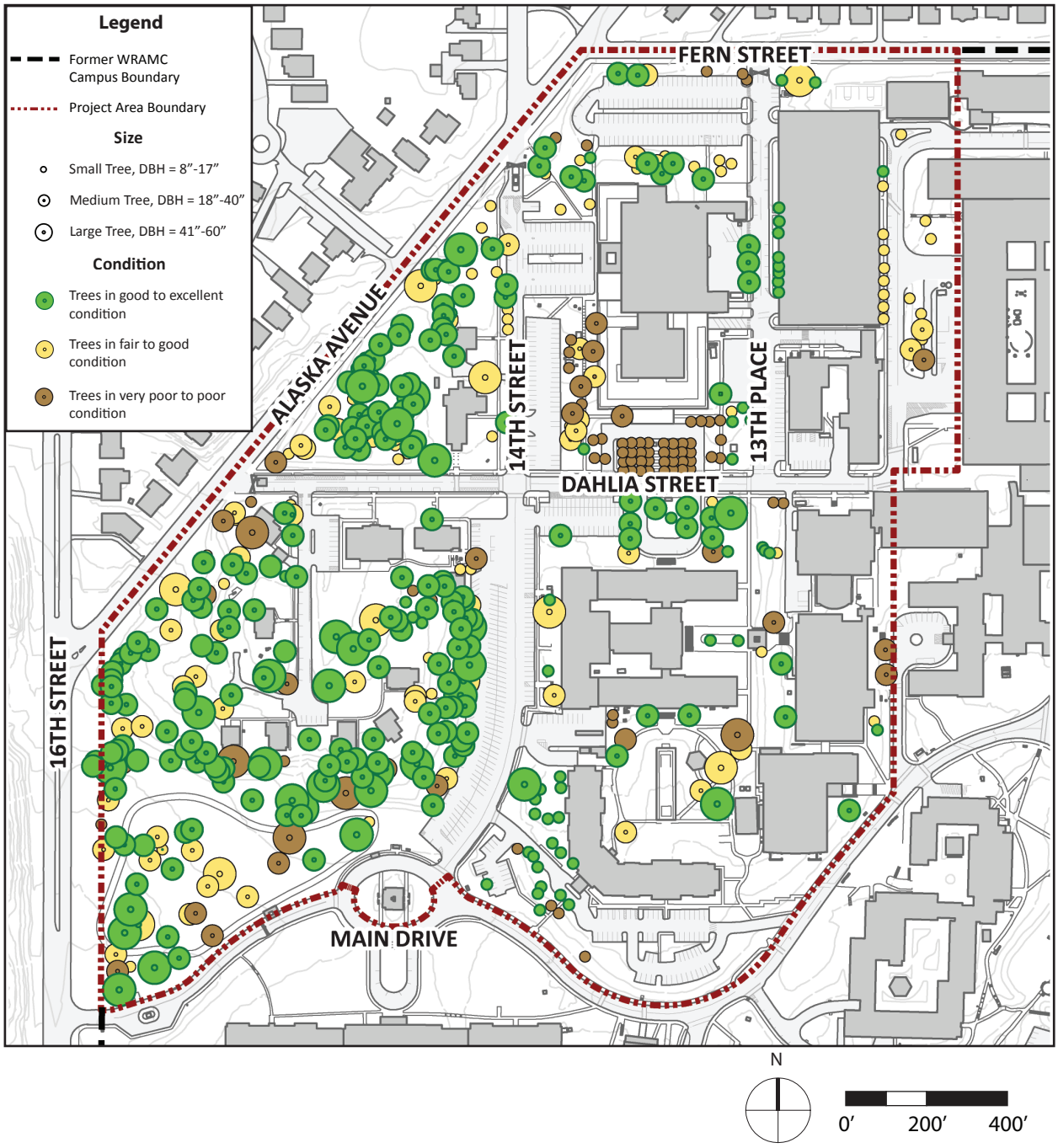
On-street parking is provided throughout the study area along all streets. Most parking spaces require residential parking permits, though some spaces are metered or unregulated. Other on-street parking is generally prohibited during peak periods (typically 7:00 to 9:30 am and 4:00 to 6:30 pm) but unregulated during off-peak periods.

Vehicular access for the Preferred Action Alternative would be provided at four intersections along the border of the FMC portion and at the Dahlia Street and Main Drive entrances to the DC-LRA. The driveways would be stop-controlled, with the exception of the one provided along 16th Street. Access points where bus service is anticipated would be designed to Washington Metropolitan Area Transportation Authority (WMATA) Bus Stop guidelines.

The No Action Alternative would not impact parking.

The Preferred Action Alternative would require that the majority of parking be provided in below-grade lots. Existing buildings that are reused would be required to develop independent

Exhibit S.4 - *Existing Trees*



below-grade parking solutions and new buildings would need to incorporate parking within their lot in below-grade structures. Under the Preferred Alternative, on-street parking on internal FMC roadways would not be permitted. Current parking allowances on internal FMC roadways would be removed upon implementation of the Preferred Action Alternative.

The existing conditions in and around the former WRAMC were characterized to provide a foundation for assessing the transportation implications of the Preferred Action Alternative. This was determined by examining the peak traffic hours. The "peak hour" represents the worst-case scenario, when the system traffic volumes are the highest. The use of a typical weekday morning and afternoon peak hours ensures that conclusions regarding adverse impacts and their respective mitigation measures would apply to the vast majority of the time the roads are used in the study area. Traffic counts were conducted at 13 intersections between the hours of 6:30 and 9:30 a.m. and between 4:00 and 7:00 p.m. on typical weekdays including normal operations of other major traffic generators in the study area (traffic counts will be updated in the spring of 2014).

The No Action Alternative includes the traffic generated by other developments near the study area and inherent growth on the roads. Growth from these two sources was added to the existing traffic volumes to determine the traffic projections for the future No Action Alternative.

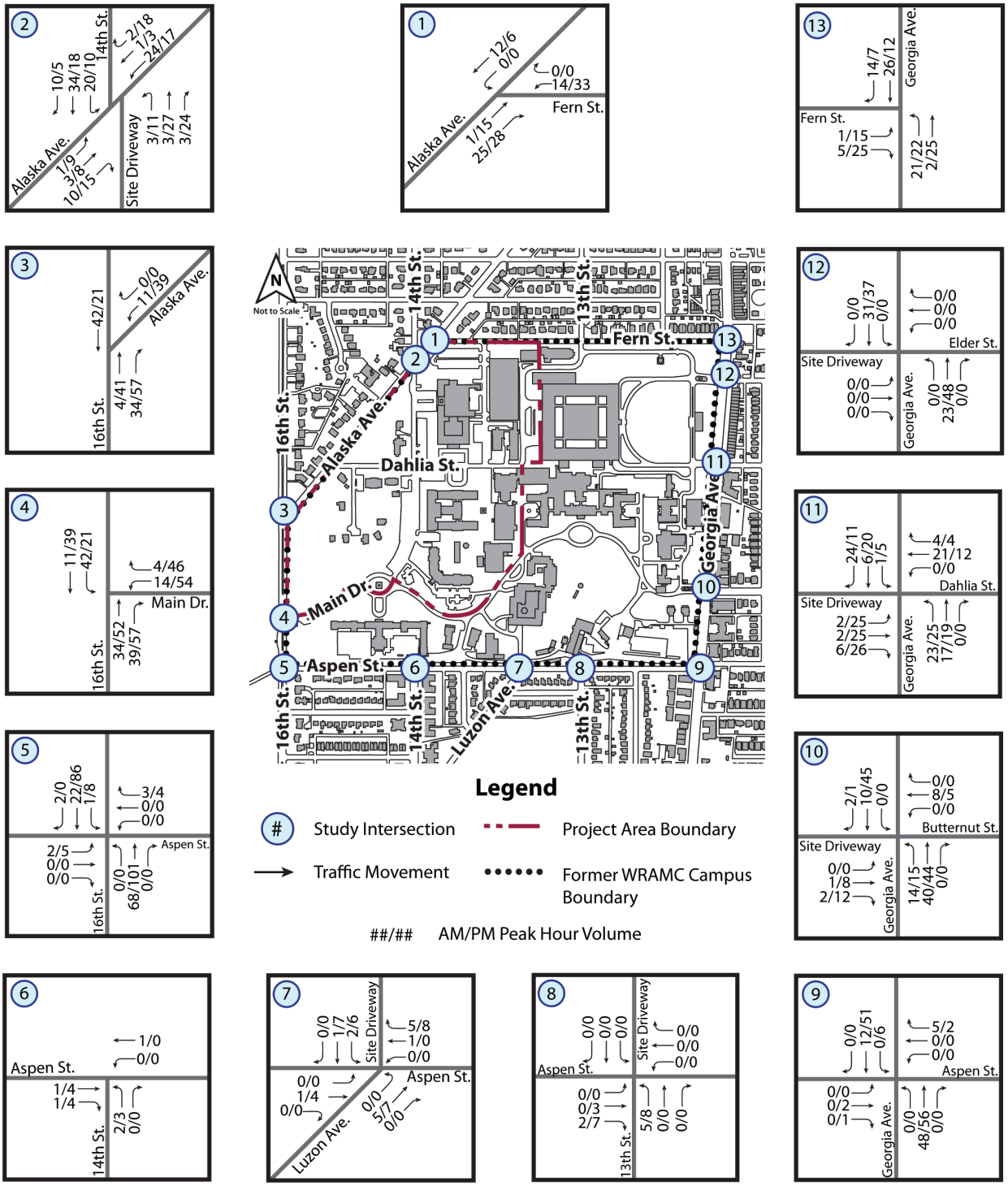
Trip generation for the chanceries was estimated based on existing traffic volumes collected adjacent to the ICC (exhibit S.5). The Preferred Action Alternative was considered to have an impact at an intersection if the capacity analyses showed a delay greater than 80 seconds at an intersection or along an approach with the proposed action where one does not exist in the future conditions for the No Action Alternative. The Preferred Action Alternative would result in a delay greater than 80 seconds at the following intersections and approaches adjacent to the former WRAMC:

- ◊ 16th Street and Alaska Avenue
- ◊ 16th Street and Main Drive (year 2032 Northbound approach, PM peak hour)
- ◊ 16th Street and Aspen Street/Sherrill Drive
- ◊ Georgia Avenue and Aspen Street (year 2031 Eastbound approach, AM peak hour)

The Preferred Action Alternative would result in a delay greater than 80 seconds at the following intersections and approaches near the former WRAMC:

- ◊ 16th Street and Van Buren Street (both intersections)
- ◊ Piney Branch Road and Dahlia Street (year 2032, PM peak hour)
- ◊ 16th Street and Kalmia Road

Exhibit S.5 - *Preferred Action Alternative Generated Traffic Volumes (2032)*



In each case where the Preferred Action Alternative would result in a delay greater than 80 seconds at an intersection and approach, signal retiming or minor changes in a lane approaching an intersection would improve the traffic flow at the intersection.

Heavy vehicle accessibility to the former WRAMC is intended to occur from Georgia Avenue and 16th Street. Given these access points, each of the driveways along Georgia Avenue and 16th Street would be required to be designed to meet DDOT acceptable standards for heavy vehicle accessibility including providing adequate turning radii, limiting visual impediments, and ensuring traffic does not oppose vehicles entering and exiting the former WRAMC. Service for trash, recycling, and deliveries would occur regularly. Chancery building design would focus loading/unloading operations away from public streets and major pedestrian access-ways.

The No Action Alternative would not impact transit services.

The Preferred Action Alternative would increase use in both Metrorail and Metrobus. Most pedestrians accessing the former WRAMC arrive from adjacent residential neighborhoods to the north and south, bus stops along 16th Street and Georgia Avenue, or from the Takoma Metrorail Station. Nearly all streets in the study area have sidewalks, planted buffers between sidewalks and the curb, and on-street parking that provide an additional buffer between pedestrians and vehicular traffic. Existing deficiencies are along Aspen Street which provides sidewalks only in sections along the southern portion of the road and Luzon Avenue which does not provide sidewalks on the eastern side of the road.

The No Action Alternative would not impact pedestrian facilities.

Development on the former WRAMC would result in increased pedestrian traffic. Increased pedestrian activity along sidewalks and at intersections may warrant upgrades or changes to existing facilities to mitigate impacts.

The Preferred Action Alternative would provide pedestrian walkways on federal government-owned streets. DOS would coordinate with DDOT to support the provision of pedestrian facilities at access points, including crosswalks, curb ramps, and pedestrian signals at signalized intersections.

The former WRAMC is served by an area with multi-use trails, signed bicycle routes, and local streets that accommodate cycling. The bicycle network generally provides good conditions for local trips and there are several routes for trips between the study area and Silver Spring, Takoma Park, and other destinations in Northwest Washington, DC.

The Preferred Action Alternative would impact bicycle facilities by increasing demand for Capital Bikeshare docks and facilities in or near the former WRAMC, new cycling routes, extensions to existing cycling routes, and increased safety and visibility for cyclists.

Noise—for additional information, see DEIS section 3.8

Noise measurements and concurrent traffic counts were conducted throughout the study area (traffic counts will be updated in the spring of 2014).

The Federal Highway Administration's (FHWA) Traffic Noise Model (TNM), Version 2.5, which predicts noise levels at selected locations based on traffic data, roadway design, topographic features, and the relationship of the analysis site to nearby roadways, was used to model potential noise impacts for the No Action and Preferred Alternatives. The percentages of automobiles, medium trucks, and heavy trucks used in the FHWA's TNM were developed from review of traffic classification data obtained during the noise measurement periods corresponding to the periods of highest noise levels.

Under the No Action and Preferred Action Alternatives, noise levels in the study area are predicted to remain constant at Activity Category B (residential level) for most sites modeled. Noise levels are predicted to increase to Activity Category C (institutional level, e.g., schools and recreation areas) at 14 of the 58 sites modeled. The majority of the impacted receptors are along Georgia Avenue. These "increase over existing" noise levels were generally the result of normal traffic growth predicted to occur between 2012 and 2032. Therefore, projected noise impacts do not differ perceptibly between the No Action and Preferred Action Alternatives.

Based on the amount of direct access along the corridor and limited right of way, constructing noise barriers is not feasible.

Cultural Resources—for additional information, see DEIS section 3.12

The NHPA established a program to preserve historic properties throughout the country. Section 106 of the NHPA, as amended, requires that federal agencies review undertakings for their impact on significant historic resources. The term historic includes architectural, archeological, and landscape resources. A significant historic resource is one that is either listed or determined eligible for listing on the National Register of Historic Places (NRHP). The NRHP is the federally maintained list of properties recognized for their significance in American history, architecture, archaeology, engineering, and culture. The criteria for evaluating the eligibility of properties for inclusion on the NRHP are established by the Secretary of the Interior.

The NRHP lists individual properties as well as historic districts. When a historic district is nominated, the submission includes an evaluation of every structure within the district boundary and identifies each as either a contributing resource to the historic district or a non-contributing resource. The Section 106 process includes the evaluation of potential adverse effects on all contributing resources. Within a historic district, some contributing resources may also be considered individually eligible for listing at either the federal or state level.

Section 106 Process—for additional information, see DEIS section 3.12.1

Prior to the initiation of the current study, the closure of the WRAMC, under the 2005 Base Realignment and Closure Act (BRAC) process, made that undertaking subject to review under

Section 106 of the NHPA. The Department of the Army Section 106 process was initiated in February 2010. An assessment was developed identifying the historic resources within the WRAMC and consulting parties were identified. This process included a series of public meetings between March and August 2010.

The outcome of the Army Section 106 process was a Programmatic Agreement (PA) executed between the Army, the DC-HPO and the ACHP. The PA, signed in January 2013, includes a series of stipulations that take into account the effects of the Army undertaking on the identified historic properties.

Historic Significance of WRAMC—**for additional information, see DEIS section 3.12.2**

The former WRAMC has been determined as eligible for listing on the NRHP as a historic district. The Area of Potential Effects (APE) for the aboveground historic resources is comprised of the entire WRAMC facility and extends approximately 1,250 feet (four city blocks) to the north and west. It extends into Rock Creek Park along 16th Street, and is bounded to the north by Hemlock Street, until its intersection with 13th Street. East of 13th Street it is enclosed by Fern Street to Georgia Avenue in the east and Aspen Street to the south (exhibits S.6 & S.7).

The WRAMC Historic District is eligible for the NRHP due to its significance in the field of military medicine and its architecture and design. The Walter Reed General Hospital, one of the oldest general military hospitals in the country, played a key role in the treatment and rehabilitation of America's soldiers in all major U.S. conflicts since World War I. The Army Medical School was responsible for training Army physicians in military medicine and public health and advancing military medical care through research. The Armed Forces Institute of Pathology (AFIP) is internationally renowned for its research on pathology and the study of disease.

The period of significance for the historic district has been determined to start in 1909, the opening date of the Main Hospital Building, and ends in 1956. The end date relates to changes within the military medical structure that resulted in similar or parallel installations being created elsewhere in the United States.

Rock Creek Park—**for additional information, see DEIS section 3.12.2.2**

Rock Creek Park was established in 1890 as one of the first federal parks. The park is combined with the Potomac Parkway as a single historic district resource, encompassing the rim and gorge of Rock Creek from the District of Columbia boundary to the Potomac River, including a short segment along the River. This historic resource, with a period of significance between 1828 and 1951, was listed on the NRHP in 2005.

Effects to Historic Resources—**for additional information, see DEIS section 3.12.3**

Efforts to avoid and minimize effects to historic resources include reusing Building 57/Memorial Chapel. DOS would market individually eligible Buildings 40, 41 and 52 for potential reuse on site as chanceries.

The No Action Alternative would not effect historic resources. Over time, the No Action Alternative would result in the continued deterioration of historic resources.

Exhibit S.6 - *Area of Potential Effects for Historic Resources*

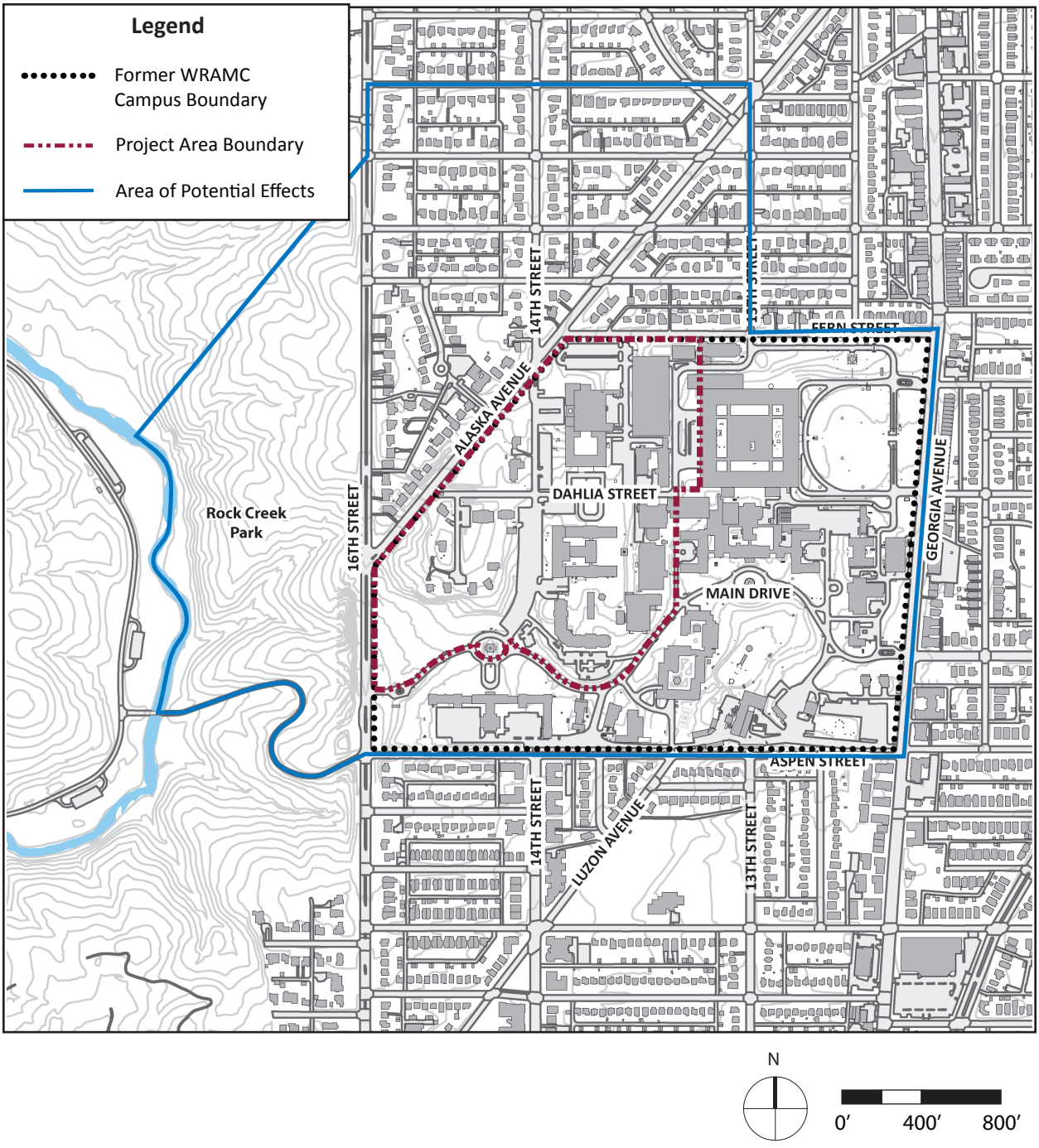
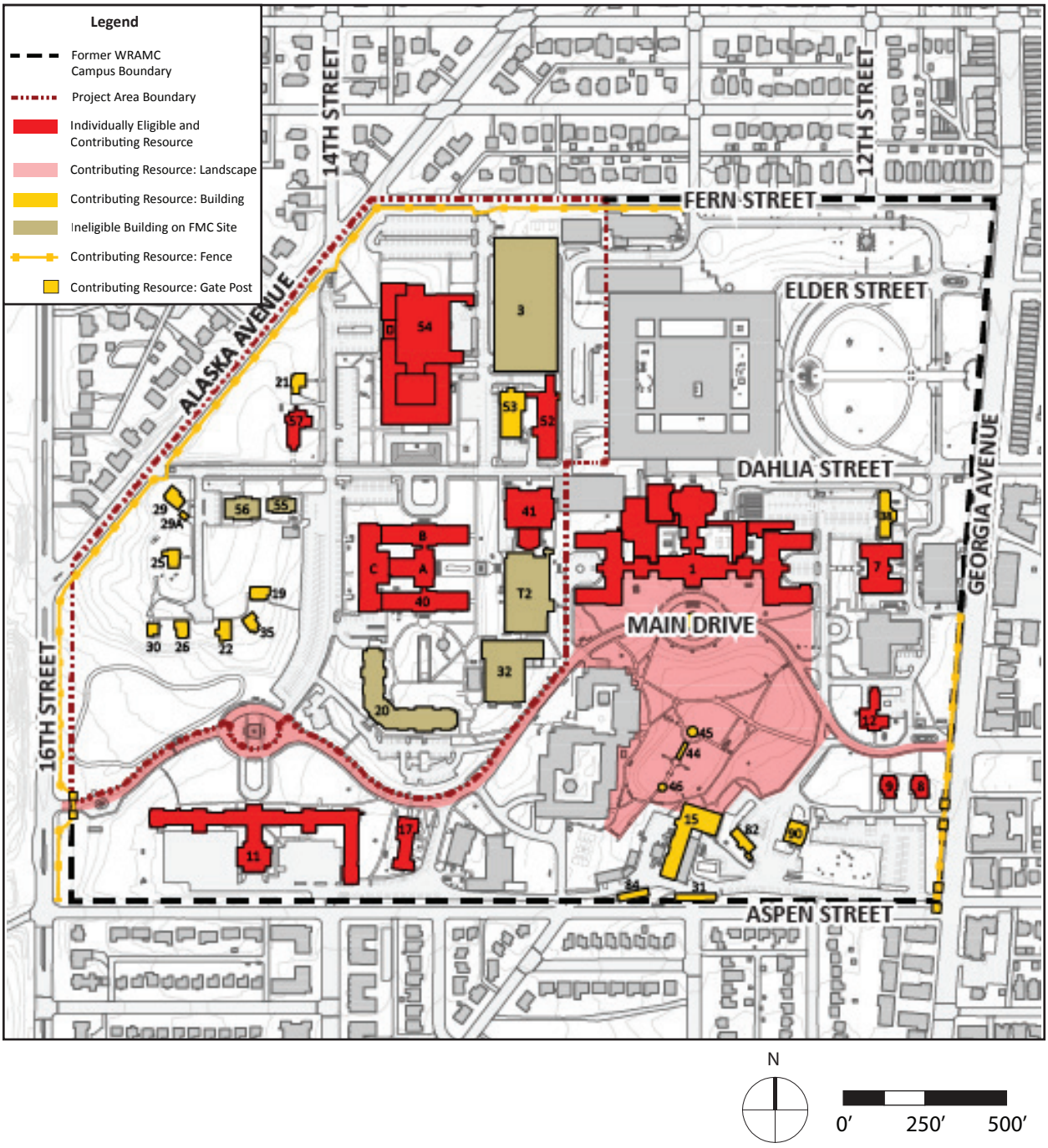


Exhibit S.7 - *Historic Resources*



The Preferred Action Alternative would have no effect on Rock Creek Park. The Preferred Action Alternative would have no adverse effect on individually eligible Buildings 1, 7, 8, 9, 11, 12, and 17. Implementation of the Preferred Action Alternative would result in an adverse effect to the WRAMC Historic District. The integrity of an historic district is based on the setting, design and association of the component parts. These are linked to the identifiable boundary, the arterial system within the campus, and the surviving resources constructed between 1909 and 1956. Removal of the historic buildings located within the boundary of the FMC site would reduce the visual integrity of the campus setting for the remaining individually eligible buildings.

The Preferred Action Alternative may have an adverse effect on the following individually eligible resources:

- ◊ **Buildings 40, 41, and 52.** The Preferred Action Alternative incorporates the potential reuse of all or a portion of Buildings 40, 41, and 52. Reuse of these buildings would be contingent upon identifying a foreign mission interested in the rehabilitation and reuse to accommodate an acceptable program. If the entire building or a portion of the building is reused, modifications would be required to the building to comply with code, incorporate programmatic needs, and provide necessary support spaces. These modifications could have an adverse effect on character defining features. Removal or replacement of features could have an adverse effect on the materials and workmanship of the resource.

- ◊ **Building 57 – Memorial Chapel.** The Preferred Action Alternative provides for the reuse of Building 57. The programmatic use of the facility has not been finalized. Prior to any reuse, modifications would be required to comply with building code, incorporate programmatic needs and provide necessary support spaces (toilet rooms, kitchenette, etc.). These modifications could have an adverse effect on character defining features. Removal or replacement of features could have an adverse effect on the materials and workmanship of the resource.

- ◊ **Perimeter Fence.** The Preferred Action Alternative retains the perimeter fence on 16th Street, Alaska Avenue and Fern Street within the boundary of the proposed FMC. Existing gates and gate posts at Main Drive (north side of the gate), Dahlia Street and 14th Street would remain in the their current locations. The Preferred Action Alternative and one variation would shift 13th Place to the east, affecting the existing gate and fence at Fern Street. The gate and fence would need to be modified and reconfigured at this location, possibly altering the integrity of the location, setting and/or design of the fence as it relates to the overall campus plan.

The Preferred Action Alternative would result in adverse effects to the following resources:

- ◊ **Building 54 – AFIP.** Implementation of the Preferred Action Alternative would result in the removal of Building 54, which would eliminate the building's historic location, setting, design, materials, workmanship, feeling and association with other historic district buildings.

- ◊ **Building 53 – Post Theater.** Implementation of the Preferred Action Alternative would result in the removal of Building 53, which would eliminate the building's historic location, setting, design, materials, workmanship, feeling and association with other historic district buildings.

Mitigation—**for additional information, see DEIS section 3.12**

Mitigation strategies would be fully developed and documented through the Section 106 process, which is planned to result in the execution of a PA. Mitigation strategies for historic buildings being retained would include:

- ◊ Detailed listing and documentation of character defining features (exterior and interior)
- ◊ Design guidelines for acceptable modifications
- ◊ Design review of all proposed modifications

Mitigation strategies for historic buildings being removed could include documentation of the building prior to partial or total removal including historic research, drawings and photographs.

Archaeological Resources—**for additional information, see DEIS section 3.12.4**

The APE for archaeological resources is comprised of the 43.5 acres to be transferred to DOS at the northwest corner of the WRAMC facility. It is bound to the west by 16th Street, to the northwest by Alaska Avenue, to the north by Fern Street, to the east by Building 2/Heaton Pavilion and Building 1/Main Hospital, and to the south by Main Drive. The latter two boundaries (to the east and south) are within the former WRAMC, the former three boundaries (west to north) mark the limits of WRAMC.

A Phase 1A archaeological investigation has been initiated. The goal of the Phase IA investigation is to assess the potential for the property to contain archaeological resources eligible for listing on the NRHP.

Seven known archaeological sites with prehistoric components are mapped within approximately 2,500 feet of the APE, all within Rock Creek Park. Due to these factors, undisturbed areas should be considered to have a high probability for prehistoric and later archaeological deposits. The Phase IA investigation would determine the extent of area with archaeological potential within the property.

The No Action Alternative would not affect archaeological resources.

The Preferred Action Alternative has the potential to affect archaeological resources present in areas of ground disturbance. This would include building foundations, buried utilities, and other infrastructure that is placed within intact sediments. Should archaeological investigations not be concluded prior to the execution of the PA for the project, stipulations would be included in that document for the treatment of archaeological resources within the APE.

Economic Analysis—for additional information, see DEIS section 3.10

The Preferred Action Alternative would have a positive economic impact on the regional economy. Economic impacts of the Preferred Alternative were calculated using the Regional Input-Output Modeling System (RIMS II), published by the Department of Commerce, Bureau of Economic Analysis. Impacts were measured at the regional level, defined as the Washington Primary Metropolitan Statistical Area (PMSA), which consists of 25 jurisdictions in the Washington, DC region. The economic change resulting from the Preferred Alternative was measured in number of jobs created, earnings associated with the employment change, as well as consumer expenditures, or the spending that would flow through the regional economy per year. The jobs associated with the construction of the FMC are a one-time impact and do not represent an ongoing change to regional employment, while the jobs created from chancery operation represent a permanent impact to the regional economy.

Construction of the FMC under the Preferred Alternative would create an estimated 3,053 temporary jobs, the equivalent of $131 million in wages paid, and as much as $109 million in consumer expenditures resulting from the new employment.

Operation of the FMC under the Preferred Action Alternative would generate an estimated 3,410 permanent jobs. It is expected that the overwhelming majority of these jobs (2,524) would be filled by foreign nationals either relocated from current chancery facilities in Washington, D.C. or not previously residing in the country. The remainder would be indirect employment (886). Indirect employment refers to the number of employees who are not employed by the foreign missions, but are jobs created or supported as a result of increased demand for goods and services as a result of the FMC's economic impact. This employment would result in an estimated $206 million in earnings and as much as $172 million in consumer expenditures within the region.

Security—for additional information, see DEIS section 2.1

The FMC would be an open site with no restrictions to vehicular, bicycle or pedestrian traffic within the public areas. Each foreign mission may have a security fence enclosing its lot. The existing historic perimeter fence will remain, unless 13th Place is moved. If 13th Place is moved, the historic fence would be moved to compensate for, and fill, the hole that may be created.

AREAS OF CONTROVERSY—for additional information, see DEIS sections 1.7 and 4.1

Substantial public interest in the proposed action exists; however, no areas of controversy have been identified. Key issues of concern identified during the scoping process were incorporated into the development of alternatives and the evaluation criteria used to select the Preferred Action Alternative.

ISSUES TO BE RESOLVED—**for additional information, see DEIS section 3.12**

One issue would be resolved after the circulation of the DEIS: the completion of the process for complying with the NHPA Section 106. The DOS formally initiated the Section 106 process for the proposed action and identified consulting parties in a June 2012 letter to the ACHP. DOS has met with representatives of ACHP and DC-HPO to review the intent of the proposed action as it relates to the form of agreement that would be developed to memorialize any stipulations for historic resources on the FMC site. Since the end product of the proposed action would be a Master Plan that would be used for FMC development, the parties agreed that the most appropriate form of agreement would be a PA. A kick-off meeting to discuss the process and possible content for a PA was held in January 2013. Should archaeological investigations not be concluded prior to the execution of a PA, stipulations could be included in that document for the treatment of any archaeological resources within the APE.

TABLE OF CONTENTS

LIST OF EXHIBITS

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GLOSSARY

Affected Environment – The physical features and land area(s) to be influenced or impacted by a proposed action under consideration. This term can also refer to various social and environmental factors and conditions pertinent to an area.

Agency Coordination – A general term referring to the process whereby government agencies are afforded an opportunity to review and comment on a proposed action.

Annual Average Daily Traffic (AADT) – The total yearly volume in both directions of travel divided by the number of days in the year.

Archaeological Sites – Places in which past peoples left physical evidence of their occupation. Archaeological sites may include ruins and foundations of historic-era buildings and structures, or surface ruins and/or underground deposits of Native American occupation debris such as artifacts, food remains (shells and bones), and former dwelling structures. Important archaeological sites can qualify as "historic properties."

Attainment Area – A geographic area in which levels of a criteria air pollutant meet the health-based primary standard (i.e., National Ambient Air Quality Standard) for the pollutant. Attainment areas are defined using federal pollutant limits set by the U.S. Environmental Protection Agency.

Average Daily Traffic (ADT) – The total volume of vehicle travel during a given time period (in whole days), greater than one day and less than one year, divided by the number of days in that time period.

Best Management Practices (BMPs) – Techniques and measures employed during and after construction to treat surface runoff and protect receiving water quality.

Chancery – The principal offices and annexes (including ancillary offices and support facilities) of a foreign mission used for diplomatic or related purposes; includes the site and any buildings on the site which are used for such purposes.

Comment Period – The duration of time during which written comments or responses may be submitted to an agency that has distributed a document for review and comment. It can be applicable to all types of documents that are circulated as well as to formal presentations, such as those that may be given by officials at a public hearing.

Conceptual Mitigation – The early, generalized identification of design, operational, construction, or other measures considered to avoid, minimize, or compensate for anticipated environmental consequences. Typically, conceptual mitigation represents ideas discussed before the concluding stages of an environmental study.

Council on Environmental Quality (CEQ) Regulations – Directives issued by the Federal Council on Environmental Quality, published in 40 CFR 1500-1508, which governs the implementation of the National Environmental Policy Act (NEPA) and the development and issuance of environmental policy and procedure for federal actions by public agencies. The regulations contain definitions, spell out applicability and responsibilities, and mandate certain processes and procedures for state agencies with programs that use federal aid funds.

Criteria Pollutants – Six pollutants for which the U.S. Environmental Protection Agency has established national ambient air quality standards to protect human health, as required by the 1970 amendments to the Clean Air Act. These pollutants include ozone, carbon monoxide, total suspended particulates, sulfur dioxide, lead, and nitrogen oxide.

Cultural Resources – Historic properties, archaeological sites, Native American cultural resources, cultural institutions, ways of life, culturally valued viewsheds, places of cultural association, and other valued places and social institutions.

Cumulative Impacts – Impacts on the environment that result from the incremental impact of a project when added to other past, present, and reasonably foreseeable future actions regardless of which agency or person undertakes other such actions.

Daily Traffic Volume – The number of vehicles that use a given roadway in both directions during a 24-hour period.

dB – Decibel, a unit of measurement of sound level which expresses relative difference in power or intensity, usually between two acoustic or electric signals, equal to 10 times the common logarithm of the ratio of the two levels.

dBA – An abbreviation for A-weighted decibel. A decibel is a unit used to describe sound-pressure levels on a logarithmic scale. For a community noise-impact assessment, an A-weighted frequency filter is used to approximate the way humans hear sound.

Deciduous – Refers to woody vegetation, such as oak or maple trees, that shed their leaves after the growing season.

Direct Impacts – The immediate effects on the social, economic, and physical environment caused by the construction and operation of a proposed action. These impacts are usually experienced within the immediate vicinity of the proposed action.

Disadvantaged Population – A group of people, living in one area, that has a median income below the federal poverty level or that exhibits other indicators of economic disadvantage.

Draft Environmental Impact Statement (DEIS) – The document prepared by a federal agency in accordance with National Environmental Policy Act regulations (22 CFR Part 161). These regulations require that the DEIS evaluate all reasonable alternatives considered; discuss the

reasons that alternatives have been eliminated from detailed study; and summarize the studies, reviews, consultations, and coordination required by environmental laws and Executive Orders.

Endangered Species – According to the Federal Endangered Species Act of 1973, endangered species are any species in danger of extinction throughout all or a significant portion of its natural range or territory.

Environment – The complex of social, natural, and cultural conditions that are present in the physical surroundings.

Environmental Impact Statement (EIS) – A document prepared by a Federal agency when undertaking a "major Federal action significantly affecting the quality of the human environment." An EIS is to serve as an action-forcing device to insure that the policies and goals defined in the National Environmental Policy Act (NEPA) are infused into the ongoing programs and actions of the Federal Government. Agencies shall focus on significant environmental issues and alternatives and shall reduce paperwork and the accumulation of extraneous background data, per 40 CFR Section 1502.1.

Environmental Feature – A general term to denote resources or objects. Features may include natural or physical resources, important structures, community facilities, topographic features, and certain other land uses.

Environmental Justice – The fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development and implementation of federal actions in accordance with applicable environmental laws, regulations, and policies. Fair treatment means that no group of people, including racial, ethnic, or socioeconomic group should bear a disproportionate share of the negative environmental consequences resulting from industrial, municipal, and commercial operations or the execution of federal, state, local, and tribal programs and policies.

Federal Register – A daily publication of the U.S. Government Printing Office that contains notices, announcements, rulemaking, and other official pronouncements of the administrative agencies of the U.S. Government. Various announcements and findings related to specific environmental matters and proposed actions and activities appear in this publication.

Final Environmental Impact Statement (FEIS) – The document prepared after circulation of a DEIS (or Supplemental DEIS) and consideration of comments received. The National Environmental Policy Act (NEPA) regulations (22 CFR Part 161) requires that the FEIS identify a preferred alternative, evaluate all reasonable alternatives considered, discuss and respond to substantive comments on the DEIS, summarize public involvement, and describe the mitigation measures that will be incorporated into the proposed action.

Floodplain – The level area adjoining a river channel that is inundated during periods of high water flow.

Foreign Mission – Any mission to or agency or entity in the United States which is involved in the diplomatic, consular or other activities of, or which is substantially owned or effectively controlled by a foreign government; or an organization representing a territory or political entity which has been granted diplomatic or other official privileges and immunities under the laws of the United States or which engages in some aspect of the conduct of international affairs of such territory or political entity, including any real property of such a mission and including the personnel of such a mission.

Greenhouse Gases (GHGs) – A gas that absorbs infrared radiation in the atmosphere. Greenhouse gases include carbon dioxide, methane, nitrous oxide, ozone, chlorofluorocarbons, hydrochlorofluorocarbons, hydrofluorocarbons, perfluorocarbons, sulfur hexafluoride.

Hazardous Substance – Byproducts of society that can pose a substantial or potential hazard to human health or the environment when improperly managed. A hazardous substance possesses at least one of four characteristics (ignitability, corrosivity, reactivity, or toxicity) or appears on special lists prepared by the U.S. Environmental Protection Agency available in the Code of Federal Regulations, Title 40, Part 261.

Historic Properties – Places that are eligible for inclusion in the National Register of Historic Places, or local landmarks. These properties can include districts, sites, buildings, structures, objects, and landscapes significant in American history, prehistory, architecture, archaeology, engineering, and culture. Historic properties can also include traditional cultural properties.

Hourly Traffic Volume – The number of vehicles that use a given road during a 1-hour period.

Indirect Effects (or secondary impacts) – Effects caused by a given action occurring later in time or farther removed in distance but that are reasonably foreseeable (e.g., induced changes to land-use patterns, population density, and growth rate).

Lead Agency – The federal project proponent with primary responsibility for preparing an environmental document.

Level of Detail – A general term referring to the amount of data collected and the scale, scope, extent, and degree to which item-by-item particulars and refinements of specific points are necessary or desirable in carrying out a study. Level of detail is an important factor in the quality of a study, overall study costs, and length of time needed to perform study work.

Mesoscale Air Quality Analysis – A regional-level analysis of air for chemical constituents.

Microscale Air Quality Analysis – An analysis of air for chemical constituents, typically conducted for a small study area such as an intersection.

Mitigation – Actions that avoid, minimize, or compensate for potential adverse impacts. In accordance with CEQ Regulations, mitigation includes avoidance, minimization, rectification, reduction, and compensation.

Mitigation Measures – Specific design, commitment, or compensation made during the environmental evaluation and study process that serve to moderate or lessen impacts from a proposed action. In accordance with CEQ Regulations, mitigation includes avoidance, minimization, rectification, reduction, and compensation.

National Ambient Air Quality Standards (NAAQS) – The prescribed level of pollutants in the outside air that cannot be exceeded during a specified time in a specified geographic area.

National Environmental Policy Act (NEPA) – The National Environmental Policy Act of 1969 (NEPA) was enacted to ensure that information on the environmental impacts of any Federal or federally funded action is available to public officials and citizens before decisions are made and before actions are taken.

National Historic Preservation Act (NHPA) – The National Historic Preservation Act of 1966 (NHPA) is the core legislation regarding the preservation of historic and cultural properties in the United States. The NHPA created many familiar components of preservation in the United States, such as the National Register of Historic Places, State Historic Preservation Officers/ Offices (SHPOs), and federal stewardship programs regarding federally owned or managed historic properties.

National Register of Historic Places (NRHP) – A list of structures, sites, and districts of national historical significance as determined by the Advisory Council on Historic Preservation under the National Historic Preservation Act of 1966, as amended.

No Action Alternative – The no action alternative is the baseline to which all other alternatives are compared; it demonstrates the consequences of taking no action.

Noise Abatement Measures – Actions that reduce noise impacts. Noise-abatement measures can be management measures, alteration of horizontal and vertical alignments, acquisition of property rights for construction of noise barriers, construction of noise barriers, acquisition of real property or interest for buffer zones, or noise insulation of public-use or nonprofit institutional structures.

Peak Hour – The hour of the day when traffic volume on a given roadway is highest. A separate peak hour can be defined for morning and evening periods.

Peak-hour Leq (equivalent sound level) – Represents the noisiest hour of the day/night and usually occurs during peak periods of motor-vehicle traffic. The Leq is the equivalent sound-level measurement, which means it averages background and short-term transient sound levels and provides a uniform method for comparing sound levels that vary over time.

Public Hearing – A meeting designed to afford the public the fullest opportunity to express opinions on a proposed action. A verbatim record (i.e., transcript) of the proceedings is made part of the project record.

Public Involvement – Activities that present information to the public, seek public comments, and serve to ensure consideration of public opinion.

Public Meeting – A meeting designed to facilitate participation in the decision-making process and to assist the public in gaining an informed view of a proposed action. Such a gathering may be referred to as a public information meeting.

Record of Decision (ROD) – The document that presents the basis for the federal agency action and summarizes any mitigation measures to be incorporated into the proposed action. No federal agency action may be undertaken until a ROD has been signed. A ROD is prepared no sooner than 30 days after the public release of the Final EIS (FEIS).

Scoping – Part of the NEPA process in which the scope of issues and alternatives for a proposed action are determined by consulting with stakeholders—federal agencies, state agencies, tribes, cities and towns, and the public.

Section 106 of the National Historic Preservation Act – The National Historic Preservation Act of 1966 (16 U.S.C. 470f), Section 106, requires federal agencies to consider the effect of their undertakings on properties included in or eligible for inclusion on the National Register of Historic Places and to afford the Advisory Council on Historic Preservation the opportunity to comment on such undertakings.

Section 404 – The Federal Water Pollution Control Act Amendments of 1972 (33 U.S.C. 401 et seq.) is the enabling legislation for protection of waters of the United States by the U.S. Army Corps of Engineers and the U.S. Environmental Protection Agency.

Significant Impacts – Any number of social, environmental, or economic effects or influences that may occur as a result of the implementation of a proposed action. "Significant impacts" may include effects that are direct, secondary, or cumulative. The term significant is used to measure both context and intensity in determining what type of National Environmental Policy Act document is appropriate.

State Historic Preservation Office – State Historic Preservation Offices (SHPOs) administer the national historic preservation program at the State level, review National Register of Historic Places nominations, maintain data on historic properties that have been identified but not yet nominated, and consult with Federal agencies during Section 106 review. SHPOs are designated by the governor/mayor of their respective State or territory.

Study Area – An identified expanse of land or topography selected and defined at the outset of engineering or environmental evaluations that is sufficiently adequate in size to fully identify, analyze, and document impacts and effects for proposed actions within its boundaries.

Threatened Species – A species which is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range or territory.

Undertaking – An undertaking is a federal project, activity, or program, including those carried out by or on behalf of a federal agency; those carried out with federal financial assistance; or those requiring a federal permit, license, or approval.

U.S. Department of State – the United States federal executive department responsible for international relations of the United States, equivalent to the foreign ministries of other countries. The Department was created in 1789 and was the first executive department established.

Waters of the U.S. – Waters used in interstate or foreign commerce, subject to ebb and flow of the tide, and all interstate waters including interstate wetlands which are considered jurisdictional under Section 328.3[2] of the Clean Water Act. Jurisdictional waters of the U.S. are further defined as all other waters such as navigable waterways, intrastate lakes, rivers, streams, intermittent streams, mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, natural ponds or impoundments of water, tributaries of waters, and territorial seas.

Wetlands – Areas that are inundated or saturated by surface water or groundwater at a frequency and duration sufficient to support, under normal conditions, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands include swamps, marshes, and similar areas.

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ACRONYMS

ACHP	Advisory Council on Historic Preservation
ACM	Asbestos Containing Material
AFIP	Armed Forces Institute of Pathology
AFRH	Armed Forces Retirement Home
APCWDW	The Alliance to Preserve The Civil War Defenses of Washington
APE	Area of Potential Effects
AST	Aboveground Storage Tank
BLS	Bureau of Labor Statistics
BMP	Best Management Practices
BRAC	Base Realignment and Closure Act
BZA	Board of Zoning Adjustment
CAA	Clean Air Act
CEQ	Council on Environmental Quality
CFA	U.S. Commission of Fine Arts
CFR	Code of Federal Regulations
CLRP	Constrained Long Range Plan
CO	Carbon Monoxide
CO_2	Carbon Dioxide
CO_2e	Carbon Dioxide Equivalents
CSO	Combined Sewer Overflow
dB	Decibel
dB(A)	A-weighted Decibel
dbh	Diameter at Breast Height
DCDES	District of Columbia Department of Employment Services
DC-HPO	District of Columbia Historic Preservation Office
DC-LRA	District of Columbia's Walter Reed Army Medical Center Local Redevelopment Authority
DCWASA	District of Columbia Water and Sewer Authority
DDOE	District of Columbia Department of the Environment
DDOT	District of Columbia Department of Transportation
DEIS	Draft Environmental Impact Statement
DHS	U.S. Department of Homeland Security
DMPED	Deputy Mayor for Planning and Economic Development

ACRONYMS (CONTINUED)

DOS	The U.S. Department of State
EIS	Environmental Impact Statement
EJ	Environmental Justice
EO	Executive Order
EPA	U.S. Environmental Protection Agency
ESA	Endangered Species Act
FEIS	Final Environmental Impact Statement
FEMA	Federal Emergency Management Agency
FHWA	Federal Highway Administration
FMC	Foreign Missions Center
FY	Fiscal Year
GHGs	Greenhouse Gases
gpm	Gallons Per Minute
GSA	General Services Administration
HCM	Highway Capacity Manual
ICC	International Chancery Center
ITE	Institute of Transportation Engineers
LEED	Leadership in Energy and Environmental Design
LEP	Limited English Proficiency
Leq	Hourly Equivalent Noise Levels
MEV	Million Entering Vehicles
MSAT	Mobile Source Air Toxics
MSL	Mean Sea Level
MWCOG	Metropolitan Washington Council of Governments
NAAQS	National Ambient Air Quality Standards
NAC	Noise Abatement Criteria
NCPC	National Capital Planning Commission
NEPA	National Environmental Policy Act
NHL	National Historic Landmark
NHPA	National Historic Preservation Act
NO_2	Nitrous Oxide
NPS	National Park Service
NRHP	National Register of Historic Places

ACRONYMS (CONTINUED)

O_3	Ozone
OFM	Office of Foreign Missions
PA	Programmatic Agreement
PCB	Polychlorinated Biphenyls
$PM_{2.5}$	Particulate Matter less than 2.5 micrometers in diameter
PM_{10}	Particulate Matter less than 10 micrometers in aerodynamic diameter
PMSA	Primary Metropolitan Statistical Area
PPM	Parts Per Million
RCC	Rock Creek Conservancy
RCRA	Resource Conservation and Recovery Act
ROD	Record of Decision
ROW	Right-of-Way
SHPO	State Historic Preservation Office
SIP	State Implementation Plan
SO_2	Sulphur Dioxide
SWDC	Special Waters of the District of Columbia
TAZ	Traffic Analysis Zone
TIP	Transportation Improvement Plan
TMDL	Total Maximum Daily Load
TNM	Traffic Noise Model
USFWS	U.S. Fish and Wildlife Service
UST	Underground Storage Tank
VMT	Vehicle Miles Traveled
WMATA	Washington Metropolitan Area Transit Authority
WQS	Water Quality Standards
WRAMC	Walter Reed Army Medical Center

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1.0 PURPOSE AND NEED

1.1 OVERVIEW

The Department of State (DOS) is the federal executive agency responsible for the international relations of the United States. DOS has a number of domestic and international responsibilities associated with the establishment and operation of foreign missions in the United States. In this regard, DOS is responsible for assisting foreign missions with identifying properties on which they may locate and operate chanceries in the United States.

Chapter 1 details the underlying purpose and needs to which the projects sponsors are responding with alternatives in Chapter 2. Chapter 1 provides an overview of the decision makers and decision-making process and provides a foundation for the remainder of the document.

A "chancery" is the principal offices of a foreign mission used for diplomatic or related purposes, and annexes to such offices (including ancillary offices and support facilities), and includes the site and any buildings on the site which are used for such purposes.

A "foreign mission" is any mission to or agency or entity in the United States which is involved in diplomatic, consular or other activities of, or which is substantially owned or effectively controlled by, a foreign government; or an organization representing a territory or political entity which has been granted diplomatic or other official privileges and immunities under the laws of the United States or which engages in some aspect of the conduct of international affairs of such territory or political entity, including any real property of such a mission and the personnel of such a mission.

Due to the ever increasing scarcity of suitable properties within the District of Columbia, combined with DOS's need for properties in foreign nations of considerable size, the establishment of a new chancery enclave is central to the achievement of a number of goals:

- ◊ Protecting Americans: Several thousand U.S. government employees work at facilities that need to be replaced in nations where site acquisitions are complicated by the lack of reciprocal parcels within the District of Columbia. This project would allow DOS to leverage the availability of "chancery ready" parcels to speed and/or finalize the acquisition of safe and secure facilities from which to conduct American diplomatic and consular operations.

- ◊ Growing the American Economy: Research proves that one U.S. job is created by every 65 tourist visas issued from a U.S. embassy or consular post abroad. The DOS can leverage this project to speed the acquisition of new locations in select countries where visa demand is strong and expected to grow, yet current building constraints inhibit DOS's ability to address this demand efficiently.

- ◊ Location of Foreign Chanceries in New Areas of the District of Columbia: The majority of the foreign missions in the District of Columbia are heavily concentrated along Massachusetts Avenue, and the Sheridan-Kalorama neighborhood. This project would expand desirable chancery locations further into the District to generate economic benefits for the city and enhance both existing and proposed developments.

The availability of adequate space for the construction and operation of chanceries by foreign missions has been a long-standing challenge in the District of Columbia. An initial response to this issue came with the passage of the International Chancery Act of 1968, which authorized DOS to undertake the redevelopment of the former campus of the National Bureau of Standards, located

Foreign Missions Act of 1982
The Foreign Missions Act of 1982, 22 U.S.C. 4301-4316, reaffirms the federal government's jurisdiction over the operation of foreign missions and international organizations in the United States. The Act resulted in the establishment of the Office of Foreign Missions (OFM) within DOS to review and control the operations of foreign missions in the United States and the benefits that are made available to them. It empowers OFM to set the terms and conditions whereby benefits may be provided to foreign missions. It establishes procedures and criteria governing the location, replacement, or expansion of chanceries in Washington, DC. The Act authorizes DOS to acquire property in the United States for the establishment of property exchange agreements with foreign governments, whereby the U.S. government would reciprocally obtain a site abroad that is of equal benefit.

near the intersection of Connecticut Avenue and Van Ness Street, as the International Chancery Center (ICC); the ICC started construction in 1968. All parcels within the ICC are fully assigned. In anticipation of needing another site similar to the ICC, DOS undertook a multiyear evaluation of available land parcels within the District of Columbia and concluded that the former Walter Reed Army Medical Center (WRAMC) site was best suited to support a chancery center concept.

1.2 DESCRIPTION OF THE PROPOSED ACTION

The proposed action is to prepare a Master Plan for the long-term development of a Foreign Missions Center (FMC) on approximately 43.5 acres of the former WRAMC site at 16th Street, between Aspen Street and Alaska Avenue in the District of Columbia (exhibit 1.1). The proposed action consists of assignment of federal land to foreign missions for the purpose of constructing and operating new chancery facilities (exhibit 1.2). DOS would manage the FMC, including maintaining common areas. In support of the Master Plan, design guidelines are being developed to assist foreign missions with the development of their lot. Each foreign mission design would be subject to the local jurisdictional approval process for the design and construction of mission facilities.

The proposed FMC was conceptually planned to complement the campus character and be consistent with current and future adjacent land uses by:

1. Designing each lot access point to be placed on internal roadways of the campus;

2. Allowing public access to the public areas within the site;

3. Developing a re-use program for one historic building and maximizing the potential for re-use of other historic buildings;

4. Maintaining a 30-foot setback between the Southern boundary of the site and historic Main Drive;

5. Emphasizing vehicular and pedestrian connections between the DOS portion and the adjacent land uses; and

6. Maintaining a 50-foot vegetated buffer on the west boundary of the site, and preserving the tree canopy to the maximum extent possible.

Exhibit 1.1 - *Study Area*

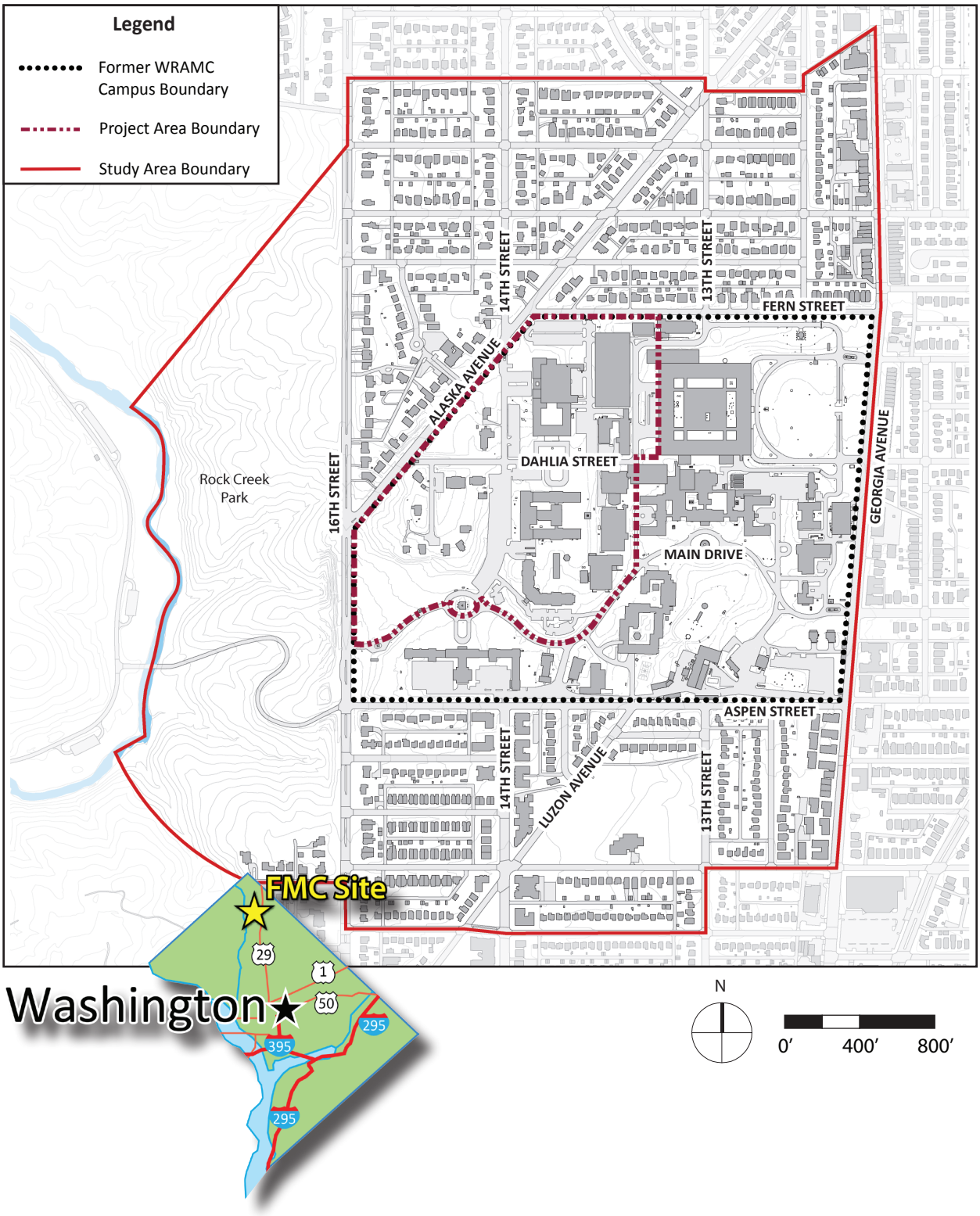
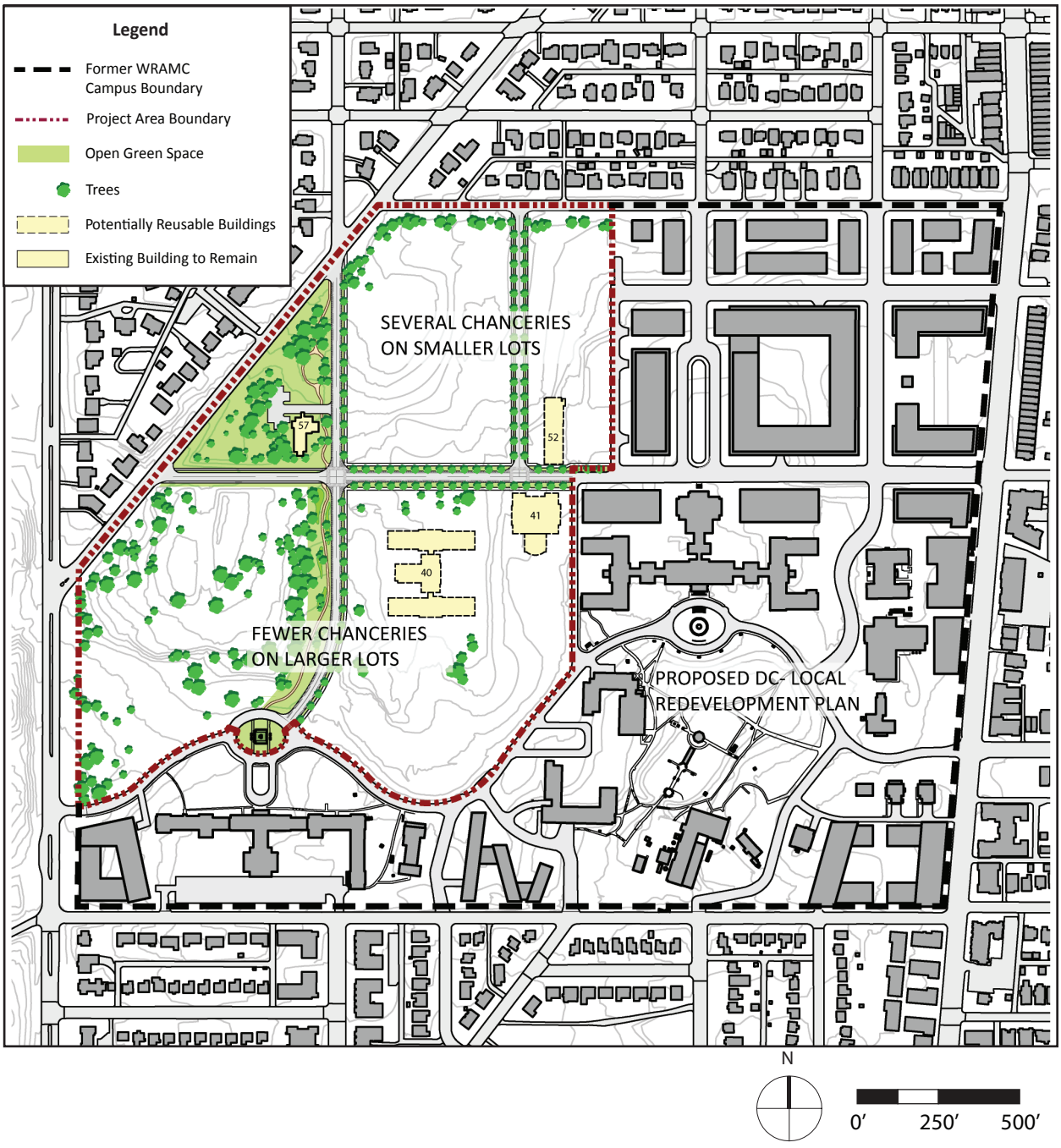


Exhibit 1.2 - *Proposed Action*



Although the potential exists for 24 individual lots, DOS anticipates 10 to 15 chanceries to be established at the FMC, as countries would have the option to combine lots if desired. The lots would range in size. The lots south of Dahlia Street are envisioned to be larger with the expectation that foreign missions may construct several buildings, creating a compound (exhibit 1.3). The lots north of Dahlia Street are envisioned to be closer together, creating a more urban density. Each foreign mission would be responsible for meeting parking needs (employee and visitor) on its individual lot. The design guidelines will promote a majority of parking to be below grade. On-street parking on internal FMC roadways would not be permitted. Specific lot development restrictions (such as minimal building setbacks, building lot coverage, maximum building height, and floor to area ratio) would be dependent upon the lot's location (exhibits 1.4 and 1.5).

The primary vehicle entrance would be at the intersection of Main Drive and 14th Street. Other vehicle entrances would be at Alaska Avenue and 14th Street, Alaska Avenue and Dahlia Street, 13th Place and Fern Street, and Dahlia Street. Streets internal to the FMC would be private, and owned and maintained by the federal government. Primary streets (14th Street and Dahlia Street) would consist of one travel lane and one bike lane in each direction. Secondary streets (13th Place) would consist of one travel lane in each direction. Wider sidewalks would be located on both sides of primary streets, and regular-size sidewalks would be located on both sides of secondary streets. Intersections would be controlled with stop signs. The FMC would be open to public transit.

The existing historic perimeter fence along the 16th Street, Alaska Avenue, and Fern Street frontages would be retained. Each foreign mission would be responsible for the perimeter security of its individual lot. Fencing standards for individual lots would be developed in coordination with the U.S. Commission of Fine Arts (CFA) and the National Capital Planning Commission (NCPC) as part of the design guidelines.

Utilities at the FMC would include domestic water, stormwater drainage and treatment, sanitary sewerage, data and telecommunications, electrical power, natural gas, and street lighting. Stormwater would be managed at the FMC as a whole and on-site at each lot, including opportunities for grey water re-use and bio-retention gardens. The stormwater system for roads would connect to the District of Columbia system. Utilities would be underground within the street/sidewalk right-of-way (ROW). Utility service would be provided to each lot.

Foreign missions would fully fund DOS's upfront infrastructure development costs through the revenue generated from the assignment of lots. Cost effectiveness measures for the FMC include maximizing the number of lots available for assignment, re-using existing roadway locations, and minimizing maintenance-intensive public features. To allow for cost-neutral funding, the proposed action envisions implementation in phases; funds from the assignment of land during one phase would finance the development costs for it and the next phase. The phased approach would optimize lot size and site design.

The proposed action would be built over approximately 20 years (exhibit 1.6).

Exhibit 1.3 - *Zones*

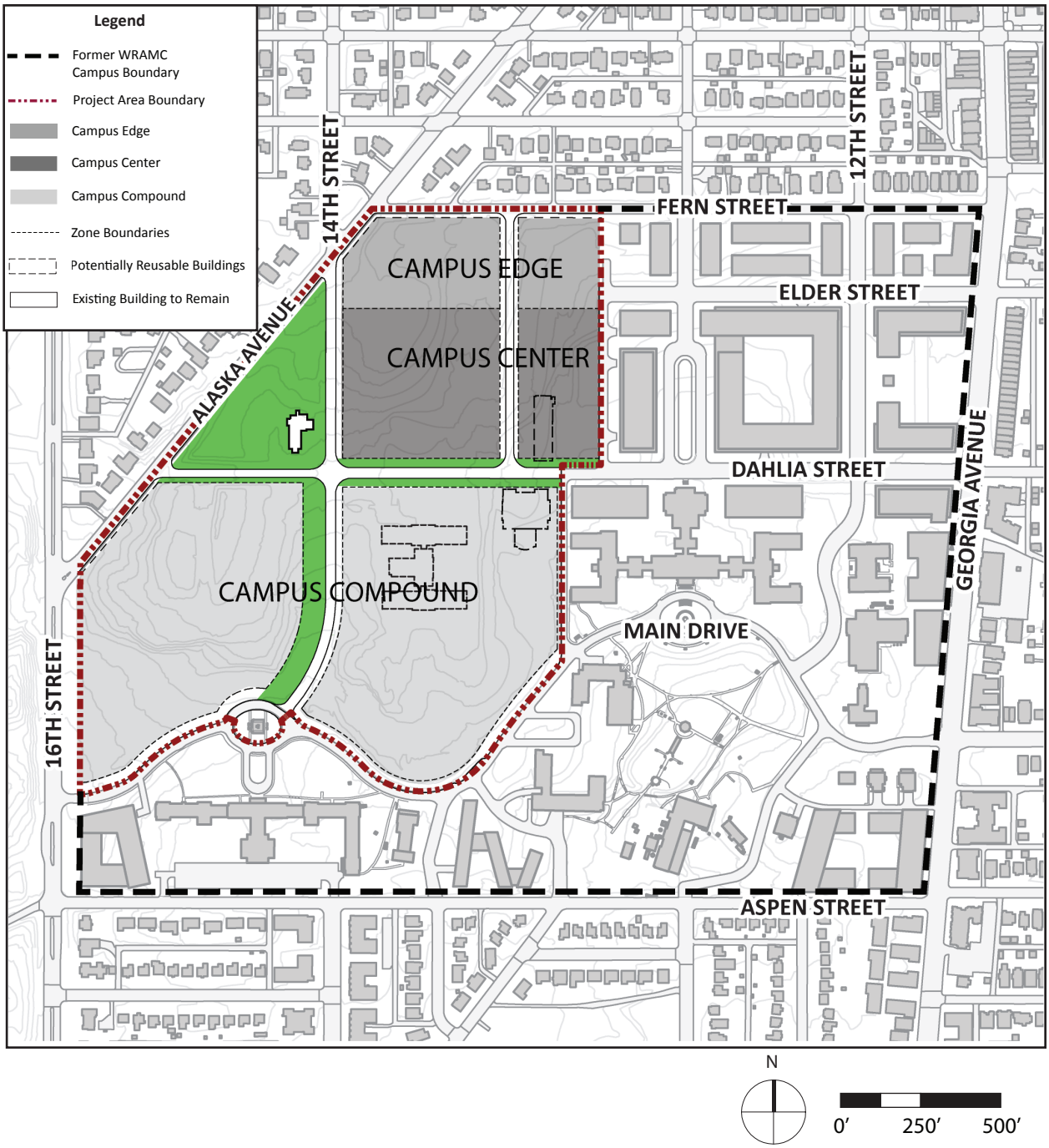


Exhibit 1.4 - *Density*

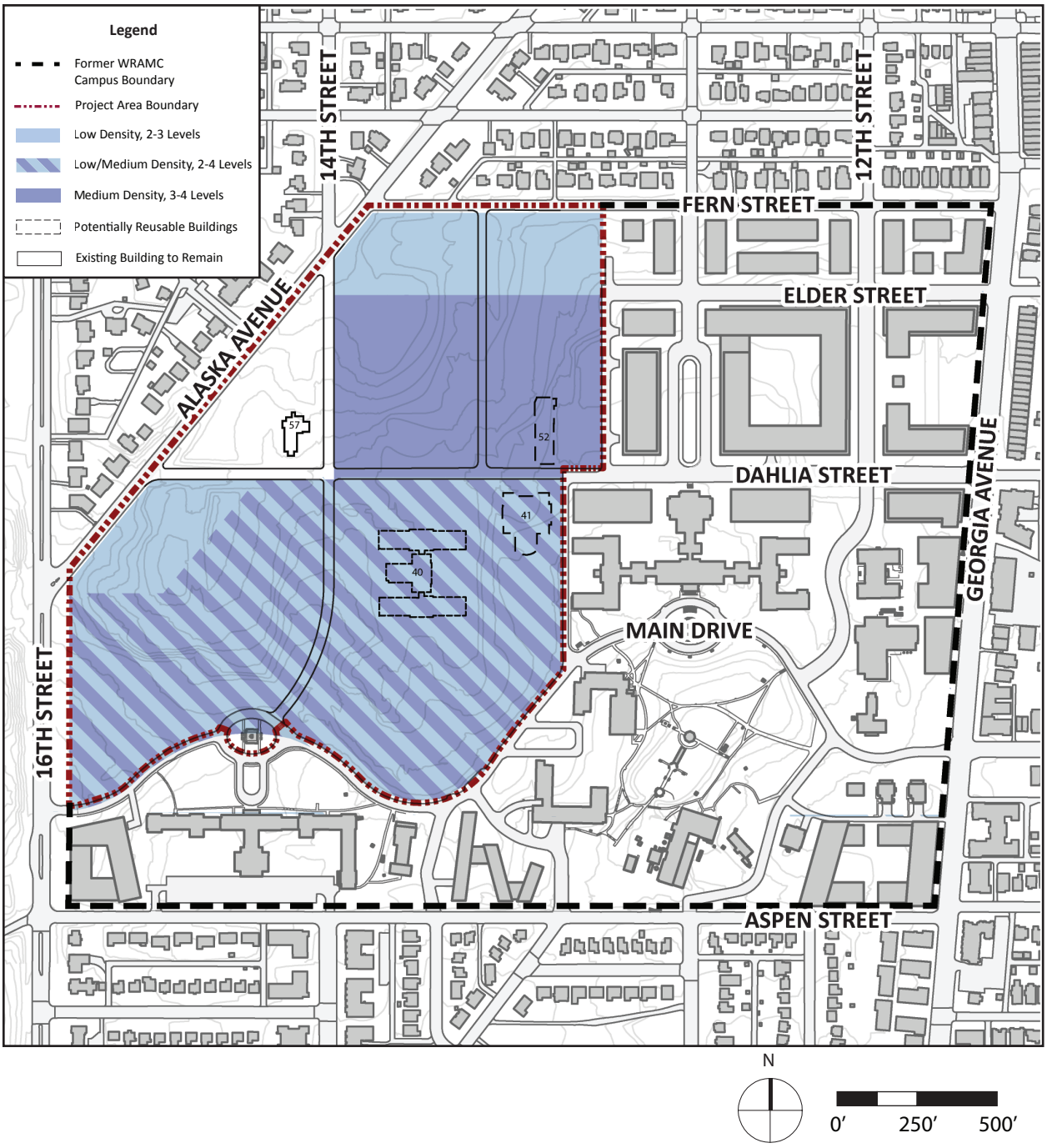


Exhibit 1.5 - *Lot Density Types*

Lot Type	*Lot Size*	*Floor Area Ratio*	*Front yard setback*	*Side yard setback*	*Building coverage and height*	*Description*
Campus Compound	≥ 1.5 acres	0.5 to 0.9	50 ft.	50 ft.	20 to 25% coverage, 2 to 4 stories	• Larger lots, campus setting for complex of chancery buildings, and representational spaces • Preservation of green space and existing natural features and buffers • Vehicle and pedestrian access and on lot parking
Campus Center	0.5 to 1.0 acre	0.5 to 1.5	40 ft.	15 ft.	30 to 40% coverage, 2 to 4 stories	• Limited space between adjacent parcels and encourages clustered development • Vehicle and pedestrian access and on-lot parking
Campus Edge	0.5 to 1.0 acre	0.5 to 1.5	40 ft.	15 ft. (50 ft. buffer at Fern St.)	30% coverage, 2 to 3 stories	• Transitional development between neighborhood and Campus Center • Preservation of buffers • Vehicle and pedestrian access and on-lot parking

1.3 PURPOSE AND NEED

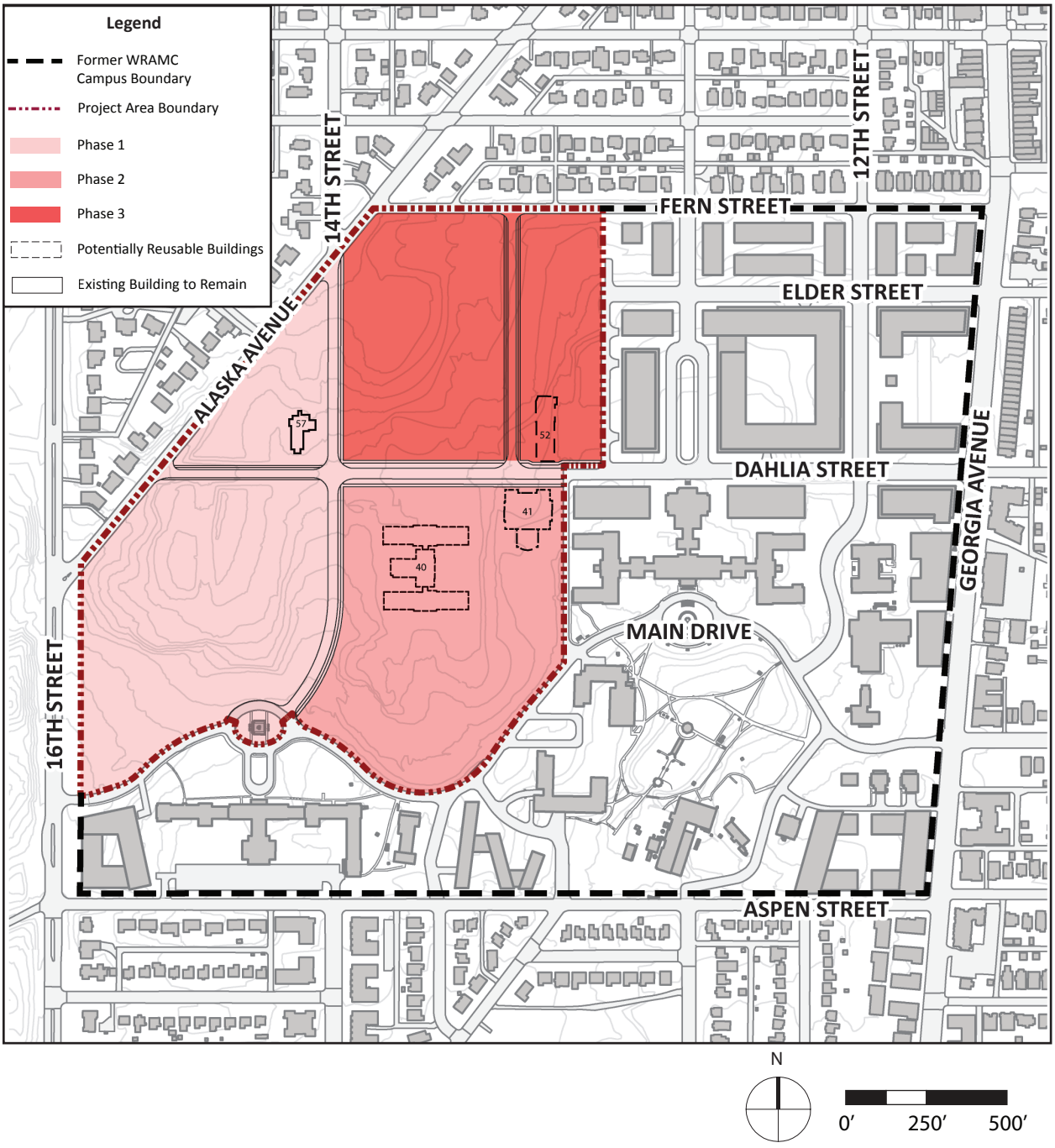
The purpose of the proposed action is to prepare a master plan for the long-term development of a Foreign Missions Center, under authorities of the Foreign Missions Act of 1982, on the site of the former WRAMC in the District of Columbia. The master plan is intended to guide the development of a cohesive campus by establishing design and land-use planning principles for the construction of new buildings, roadways, open green space, and utilities, while minimizing environmental impacts.

The need for the proposed action is based on increased and high demand for foreign mission facilities in the District of Columbia, a lack of large sites for foreign mission development or redevelopment in the District, and the need for land to use in property exchanges with other countries. The proposed action is needed primarily to address the increasing scarcity of suitable properties within the District to locate the operations of foreign missions. This scarcity has impacted DOS's ability to acquire properties in foreign nations.

Increased and High Demand for Foreign Mission Facilities in the District of Columbia

DOS has an urgent need to meet the demand from foreign missions for modern and secure facilities within the nation's capital. The District of Columbia is one of the smallest national

Exhibit 1.6 - *Phases*



capitals, but is home to more foreign missions than any other city in the world. There are approximately186 foreign missions and 31 headquarters or offices of international organizations in the northwest quadrant of the city, heavily concentrated along Massachusetts Avenue, the Sheridan-Kalorama neighborhood, and at the full ICC.

The collapse in the 1990s of both the Soviet Union and Yugoslavia resulted in the creation of 21 new countries, all of which quickly moved to establish diplomatic missions in the District of Columbia. Many are located in small, historic townhouses in the Sheridan-Kalorama and Massachusetts Avenue areas. Two decades later, many of these countries have outgrown the small facilities acquired in the very early days of their histories. Further, the rapid growth and prominence in the past decade of countries such as Brazil, China, India, and Vietnam has had a significant impact on the diplomatic presence of such governments, as well as on DOS's reciprocal presence and operations in those countries.

Lack of Property for Development or Redevelopment of Foreign Mission Facilities in the District of Columbia

There is a lack of property within the District of Columbia for the development or redevelopment of foreign missions facilities. The Foreign Missions Act states that chanceries shall be able to locate, as a matter of right, in an area which is zoned commercial, industrial, waterfront or mixed-use. Properties that fail to meet these criteria require the consent of the District of Columbia's Board of Zoning Adjustment (BZA). The BZA is required by Congress to make its decision based upon several factors, including: 1) historic preservation, 2) adequacy of off-street or other parking and the extent to which the area would be served by public transportation, and 3) the extent to which the area is capable of being adequately protected, as determined by DOS. Due to these zoning requirements and the limited supply of undeveloped or re-developable parcels within the District of Columbia, the ability of foreign missions to identify appropriate sites is becoming incrementally more challenging each year.

The ICC successfully allowed foreign missions to locate their chanceries in a purpose-built community, which was designed to both address the modern needs of such operations and to mitigate possible negative impacts such facilities may have, or be perceived to have, to neighboring properties and citizens. The ICC has proven to be a highly successful model for balancing the federal government's need to accommodate foreign mission facilities with the concerns of citizens about the location and operation of foreign missions in the District of Columbia. With the ICC fully assigned, DOS has a need to create a second ICC-type location.

Reciprocity Difficulties

In accordance with the Foreign Missions Act, DOS enters into property exchange agreements with other countries, whereby property is provided to foreign governments for the establishment of missions in exchange for DOS receiving similar property within their countries. The lack of suitable land for development or redevelopment and a full ICC have inhibited DOS's ability to reciprocally acquire property abroad to house its diplomatic and consular facilities.

The construction of the new U.S. chancery in Beijing and the Chinese chancery in the District of Columbia provides an example of how reciprocity functions. During the 1990s, U.S. chancery facilities in Beijing were identified as not meeting functional, safety, or security standards. With buildings on three distinct compounds and embassy offices located at 20 sites around Beijing, there was a need to co-locate personnel onto a single compound. In addition, the demand for consular services in Beijing was increasing. After initiating planning with the Chinese government, the new U.S. chancery in Beijing was constructed, and opened in August 2008 on a 10-acre site in China's Third Diplomatic Enclave. Simultaneously, DOS was able to provide China with land in the ICC for their new chancery, which also opened in 2008. Planning and construction of the U.S. and Chinese chanceries was governed by a series of reciprocal agreements and memoranda between the two countries. Without the ability to accommodate China's construction needs at the ICC, DOS's efforts to construct a new U.S. chancery in Beijing would most likely not have been successful.

As foreign governments continue to face greater difficulty identifying properties within the District of Columbia that are either available for chancery use or are viewed by foreign governments as being suitable for modern embassy operations, DOS faces a number of new challenges in its attempts to reciprocally acquire properties in other countries. DOS has a need to resolve stalled attempts to acquire property in certain countries to construct adequate and secure facilities for the conduct of American diplomacy and consular operations.

1.4 OTHER ACTIONS

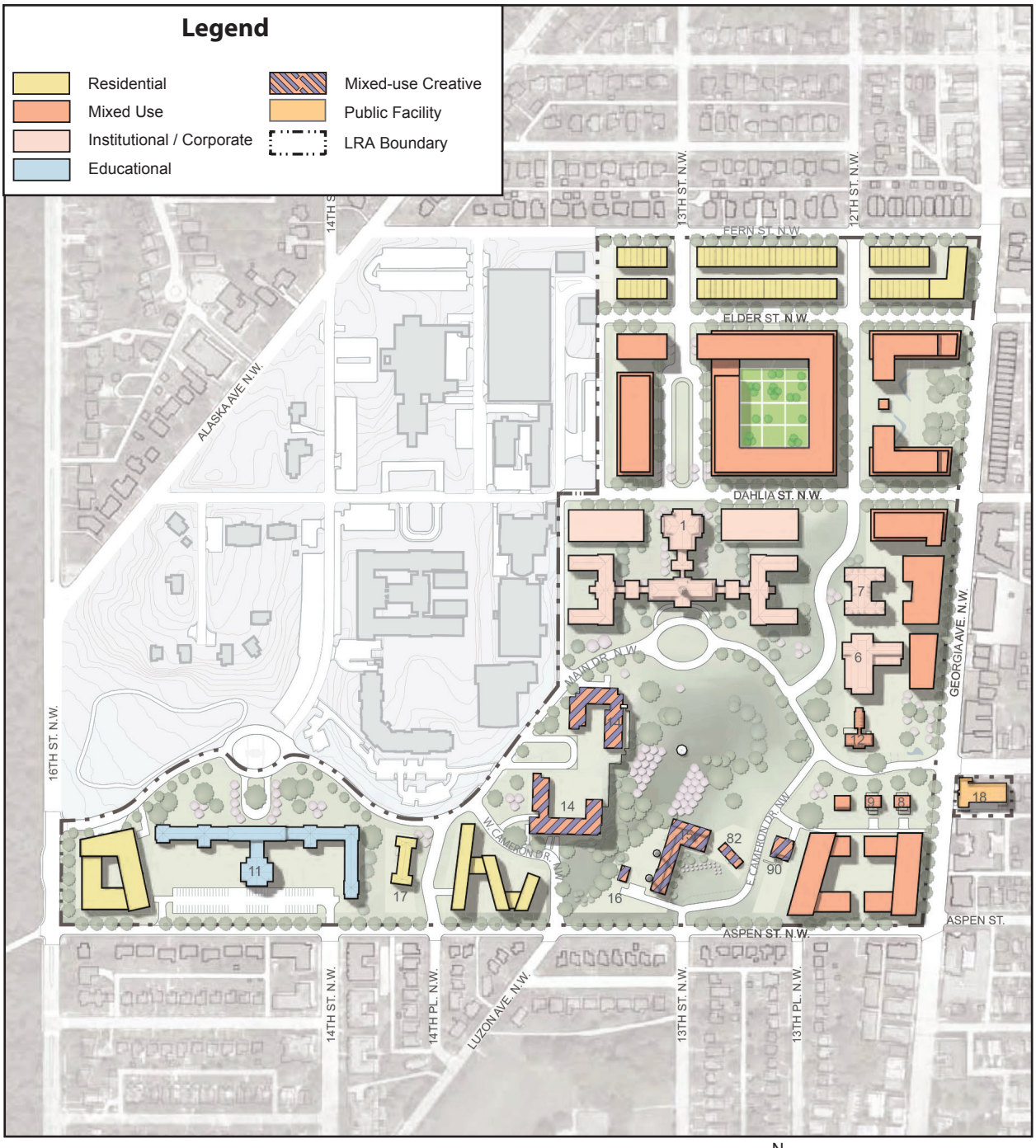
The Department of the Army is dividing the former WRAMC into two proposed developments. About 43.5 acres of the westerly portion of the campus would be developed by DOS for the FMC. The remaining 66.5 acres would be developed by the District of Columbia's WRAMC Local Redevelopment Authority (DC-LRA) as a mixed-use development (exhibit 1.7). The proposed DC-LRA plan has been created to respond to the physical and market conditions of potential new uses of the property.

The proposed DC-LRA reuse plan creates a site that is re-connected with the neighborhood community and includes uses that are compatible with existing and proposed functions in the area. The DC-LRA envisions the site as a mix of open spaces and retail, residential uses with diverse housing options, commercial offices, institutional spaces, medical care facilities and cultural and community uses.

1.5 FEDERAL DECISIONS AND ACTIONS

DOS is the lead federal agency for the proposed action. DOS, with input from the public and other federal and district agencies, would decide future actions in accordance with the National Environmental Policy Act (NEPA) and related legislation and Presidential Executive Orders (EOs). The NEPA requires federal agencies to consider the potential impacts to the natural and human environment from their actions as part of their decision-making process, and to disclose the potential impacts in a document that is circulated for public review. The NEPA process is intended to help public officials make decisions based on an understanding of the environmental

Exhibit 1.7 - *DC-LRA Proposed Reuse Plan*



Source: DC-LRA Small Area Draft Plan, Perkins+Will

consequences and to take actions that protect, restore, and enhance the environment (40 Code of Federal Regulations (CFR) Part 1500.1).

Several federal agencies participated in the alternatives development process by providing informal recommendations to DOS. These agencies were the CFA, the NCPC, and the Advisory Council on Historic Preservation (ACHP). The CFA is an independent agency established in 1910 by Act of Congress charged with giving expert advice to the President, Congress and the heads of departments and agencies of the Federal and District of Columbia governments on matters of design and aesthetics as they affect the Federal interest and preserve the dignity of the Nation's capital. Within the District of Columbia community, the Commission advises on design matters affecting the WRAMC and Rock Creek Park, as well as other private sector areas adjacent to federal interests. Under 45 CFR § 2101.1(a), CFA comments and advises on the plans and the merits of the designs before final approval or action for public buildings to be erected in the city by the Federal government.

Under 40 U.S.C. § 8722, NCPC has approval authority over site and building designs for federal public buildings in the District of Columbia and its metropolitan area, and uses NCPC-approved master plans and policies found in the Comprehensive Plan for the National Capital as the basis for subsequent reviews and approvals.

The ACHP is an independent federal agency that administers historic preservation matters and oversees the National Historic Preservation Act (NHPA) Section 106 review process (review of impacts on historic properties).

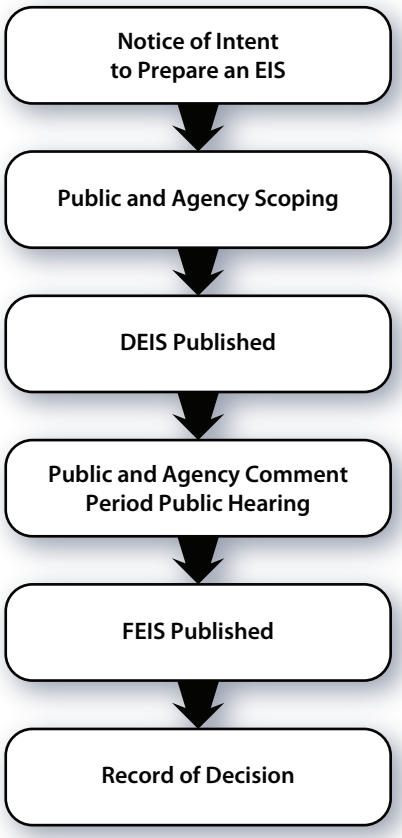
District agencies that participated in the alternatives development process by providing informal recommendations to DOS were the DC Historic Preservation Office (DC-HPO) and the DC-LRA. The DC-HPO promotes stewardship of the District of Columbia's historic and cultural resources through planning, protection, and public education. DC-HPO is part of the DC Office of Planning and serves as the staff for the Historic Preservation Review Board and the Mayor's Agent for historic preservation. DC-HPO implements federal historic preservation programs as the State Historic Preservation Office for the District of Columbia, responsible for protecting the city's unique historical, archaeological, architectural, and cultural resources. This responsibility is shared with each federal agency that administers properties or undertakes construction activities within the city. In accordance with the Base Realignment and Closure Act (BRAC) law, the District of Columbia established the DC-LRA by Mayoral Order 2006-21. The District of Columbia is the only jurisdiction comprising the LRA and is recognized by the Department of Defense, Office of Economic Adjustment. The Mayor of the District of Columbia established the Walter Reed LRA Committee to oversee the preparation of its Reuse Plan which was created by the District government and is administered by the Office of the Deputy Mayor for Planning and Economic Development (DMPED). The DC-LRA is overseeing the redevelopment of the other portion of the WRAMC site.

1.6 PURPOSE OF ENVIRONMENTAL IMPACT STATEMENT (EIS)

The purpose of this EIS is to provide DOS and the public with a full accounting of the potential environmental impacts of the alternatives developed for meeting the proposed action's purpose and needs. The EIS serves as the primary document to facilitate review of the proposed action by federal, state and local agencies and the public. It is intended to provide a full and fair discussion of the potential significant environmental impacts from the proposed action and inform decision makers and the public of reasonable alternatives that would avoid or minimize adverse impacts or enhance the quality of the human environment (40 CFR Part 1502.1). An EIS must briefly discuss the purpose and needs for the proposed action, the range of alternatives considered, the resultant environmental impacts from the proposed action, and the agencies and people consulted during the planning of the proposed action. The ultimate objective of this EIS is to identify a solution that furthers the proposed action's purpose, satisfies the needs of the proposed action, and minimizes adverse environmental and social impacts at an affordable cost.

The EIS is first circulated publicly as a Draft Environmental Impact Statement (DEIS). Following publication of the DEIS, a public hearing is held to solicit additional public input into the planning and decision-making process (exhibit 1.8). Additionally public input is accepted during the 45-day comment period following publication of the DEIS. Comments from other federal agencies, district agencies, and the public are used to assist DOS in identifying the preferred alternative that would be further described in a publicly circulated Final EIS (FEIS).

Exhibit 1.8 - *EIS Process*



Publication of the FEIS is followed by DOS issuing a Record of Decision (ROD) explaining the rationale for choosing the preferred alternative and describing the implementation of the preferred alternative. The ROD:

◊ States the DOS decision.

◊ Identifies all alternatives considered by the agency in reaching its decision, specifies the alternative or alternatives which were considered to be environmentally preferable. An agency may discuss preferences among alternatives based on relevant factors including economic and technical considerations and agency statutory missions. An agency shall identify and discuss all such factors including any essential considerations of national policy that were balanced by the agency in making its decision and state how those considerations entered into its decision.

◊ States whether all practicable means to avoid or minimize environmental harm from the alternative selected have been adopted, and, if not, why they were not. A monitoring and enforcement program shall be adopted and summarized where applicable for any mitigation (40 CFR Part 1505.2).

1.7 SCOPE OF ENVIRONMENTAL ANALYSIS

Public participation is integral to the preparation of an EIS. This section summarizes the issues and concerns that were identified during the public scoping process held from June 18 through August 10, 2012 and where those issues are addressed in this EIS (exhibit 1.9). Scoping is a process for determining the range of issues to be addressed in an EIS and for identifying significant issues associated with the alternatives (40 CFR Part 1501.7). The objectives of the scoping process are to notify those interested—other federal, district, and local agencies, tribes, and other groups—about the alternatives being considered; solicit comments about environmental issues, alternatives, and other items of interest; and consider those comments in the preparation of the EIS.

Scoping for the EIS began with DOS issuing its notice of intent to prepare an EIS, which was published in the Federal Register June 18, 2012. The notice of intent invited individuals, organizations, and agencies to submit comments concerning the scope of the EIS. The comment period ended on August 10, 2012, and DOS considered the comments received in defining the scope of the analysis performed and documented in the EIS.

A public scoping meeting was held July 19, 2012, in the District of Columbia. This meeting consisted of an open house with displays, a presentation, and time for public comments and questions to be considered in the planning of the proposed action and preparation of the EIS. Approximately 55 people attended the scoping meeting including residents, community leaders, members of the press, elected officials, and District of Columbia government agency representatives.

Exhibit 1.9 - *Issues Identification and Tracking*

Issue	*Addressed in Particular Section of the DEIS*	*Remarks*
Consider the preservation of native plants, trees, and open spaces.	1.2 Proposed Action, 2.3, Alternatives Retained for Detailed Study, 3.3 Vegetation	The proposed action considers and includes the preservation of open spaces, existing trees and other vegetation, and maintaining and creating vegetated buffers from the adjacent land uses along 16th Street, Alaska Avenue, and Fern Street.
Address light pollution by considering environmentally sensitive lighting.	See Remarks	Specific types of lighting and light shielding would be considered during preliminary and final design of the preferred alternative.
Encourage countries wishing to locate a chancery on the site to voluntarily pledge to be Leadership in Energy and Environmental Design (LEED) Certified.	3.14 Energy	Countries wishing to locate a chancery on the FMC would be encouraged to voluntarily pledge to be LEED-certified.
Consider preserving the Memorial Chapel (Building 57) and the Walter Reed Army Institute of Research building (Building 40).	3.12.1 Historic Resources	Memorial Chapel would be preserved. The Walter Reed Army Institute of Research building (Building 40) may be preserved.
Minimize adverse impacts on the cultural and historic landscape. The Army plans to nominate the entire installation as an historic district, both on the District of Columbia Inventory and the National Register of Historic Places.	3.12.1 Historic Resources	The proposed action has been planned to minimize adverse impacts on the cultural and historic landscape.
Would there be a separate water system, sewage, fire, police system?	1.2 Description of the Proposed Action, 3.9.1.3 Community Facilities and Services	Utilities at the FMC would consist of water, stormwater drainage and treatment, sanitary sewer, data and telecommunications, electric, natural gas. Street lighting would be provided. Stormwater would be managed on-site at each chancery, including grey water re-use and bio-retention gardens. The stormwater system for roads would connect to the District of Columbia system. Utilities would be underground within the street/sidewalk ROW. Utility service would be provided to each chancery lot. DC emergency services would be responsible for the FMC.
Tear down the Armed Forces Institute of Pathology (Building 54).	1.2 Description of the Proposed Action	Building 54 would be removed as part of the proposed action.
What exactly would the space be used for? We hear embassies and chanceries but could we have a description that includes the possible number of embassies/ chanceries and associated staff who might work there? How many do you envision? Would it include residential space for them?	1.2 Description of the Proposed Action	The proposed action consists of the long-term assignment of federal land to foreign governments for the purpose of constructing and operating chancery facilities. A maximum of 25 lots would be available within the FMC, and countries would have the option to combine lots if desired.

Continued on Following Page

Exhibit 1.9 - *Issues Identification and Tracking (Continued)*

Issue	*Addressed in Particular Section of the DEIS*	*Remarks*
Please encourage countries wishing to locate a chancery on the site to voluntarily pledge to work with other chanceries and the District of Columbia's Department of Transportation (DDOT) to locate one or more Capitol Bike share stations on areas they are leasing. Use this pledge as one of the criteria for determining which countries would receive leases.	3.8.2 Pedestrian and Bicycle Facilities	Countries wishing to locate on the FMC would be encouraged to work with other missions and DDOT to provide a Capitol Bike share station. The proposed action would accommodate bicycles through the inclusion of short- and long-term bicycle parking. DOS's proposed action consists of: • Ensuring internal roads accommodate bicycle travel; and • Providing crosswalks and all-way stops at FMC entrances.
Is there a perimeter fence going in place between the District of Columbia and the foreign mission centers for security issues?	1.2 Description of the Proposed Action	The existing historic perimeter fence along the 16th Street, Alaska Avenue, and Fern Street frontages would be retained. Fencing standards for individual chanceries would be developed as part of FMC design guidelines.
How many entrances and exits are planned?	3.8.1 Vehicle Traffic	Vehicular access to the FMC would be provided at five locations: Main Drive, Fern Street, two locations along Alaska Avenue, and Dahlia Street.
Would there be security on the site?	1.2 Description of the Proposed Action	The U.S. Secret Service is responsible for security of foreign missions and would patrol the area.
What country's chanceries would be located at the FMC?	See Remarks	The specific countries that could locate at the FMC are unknown.
Support local business during the design and construction phase.	3.10 Socioeconomics	Construction of the FMC would create an estimated 3,053 temporary jobs within the regional economy, the equivalent of $131 million in wages paid, and as much as $109 million in consumer expenditures resulting from the new employment. To the extent that chancery employees support retail businesses or choose to reside within the study area, the FMC would have a slight positive effect on local businesses.
Would the public have access to the site and would there be walking and biking trails?	3.8.2 Pedestrian and Bicycle Facilities	The FMC would be open to the public, with pedestrian and bicycle access.
Why is this site appealing to the DOS for the chanceries? Are there other sites available?	2.1 Selection of the WRAMC as the Site for the FMC	After years of considering the suitability of other locations throughout the District of Columbia, DOS concluded the former WRAMC site was the most viable option given its size, location, and opportunity for purpose-built chanceries.
Consider the traffic issues during all phases of the project, including truck traffic.	3.8 Transportation	The potential traffic impacts of the proposed action have been considered.
Address the impacts to public parking for neighbors.	3.8.1 Vehicle Traffic	Existing buildings that are reused would be required to develop independent parking solutions, and new buildings would be required to incorporate parking within their parcel boundaries. On-street parking would not be permitted.

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Exhibit 1.9 - *Issues Identification and Tracking (Continued)*

Issue	*Addressed in Particular Section of the DEIS*	*Remarks*
Have a consistent design with the existing neighborhood and use smart growth concepts.	1.2 Description of the Proposed Action	The proposed action concept complements the campus character and is consistent with current and future adjacent land uses by: 1. Keeping access to all lots internal to the former WRAMC campus; 2. Allowing full public access to the site; 3. Developing a re-use program for one historic building and maximizing the potential re-use of other historic buildings; 4. Maintaining a 30-foot setback between the Southern boundary of the FMC and historic Main Drive; 5. Emphasizing a pedestrian connection between the FMC and the adjacent DC-LRA mixed use redevelopment site to the east; 6. Maintaining a 50-foot vegetated buffer on the west boundary of the FMC and preserving the tree canopy where possible; 7. Delineating a formal east/west open space axis to unite different portions of the FMC with the DC-LRA development; and 8. Having massing and density that complements the surrounding neighborhoods.
Address stormwater management through landscaping and pervious paving for walkways, parking, and other areas that might otherwise be paved.	3.2.1 Surface Waters	Stormwater would be managed on-site at each chancery, and by DOS for infrastructure including grey water re-use and bio-retention gardens. The stormwater system for roads would connect to the District of Columbia system.

1.8 APPLICABLE REGULATIONS, EXECUTIVE ORDERS, AND REQUIRED PERMITS AND APPROVALS

Many statutes and EOs apply to the proposed action and were considered during the planning and conceptual design of the proposed action and preparation of this EIS (exhibit 1.10).

DOS would not require permits to implement the proposed action.

Exhibit 1.10 - *Applicable Statutes and Executive Orders*

Law or Executive Order	*Requirements*	*Implications and Resulting Actions*
American Indian Religious Freedom Act	To respect the practice of traditional American Indian religions, including access to religious sites and use of ceremonial items.	Identify potentially concerned tribes and consult with them during NEPA analyses.
Archeological and Historical Preservation Act	Requires federal agencies to identify and recover data from archeological sites threatened by an action taken by the federal agency.	Conduct surveys, identify archeological sites, consult with specialists and others during NEPA process and fund data recovery.
Archeological Resources Protection Act	Requires permits and provides for civil and criminal penalties for disturbing archeological resources on federal and tribal land without a permit.	Archeologists performing investigations on federal or Indian land must meet permit requirements (43 CFR 7; also 36 CFR 79, and 43 CFR 3).
Architectural Barriers Act	Requires public buildings to be accessible to persons with disabilities.	Consider accessibility issues and the environmental impact of accessibility solutions during the NEPA process.
Clean Air Act (CAA)	Requires agencies to comply with state air quality standards set in State Implementation Plans (SIPs).	Review SIPs, measure current air quality, project potential changes, seek alternatives that meet standards during the NEPA process (40 CFR 50).
Clean Water Act	Requires a permit from the U.S. Army Corps of Engineers for actions affecting "Waters of the United States".	Identify potentially affected waters, consult with Corps during the NEPA and permitting processes, explore alternatives to avoid and minimize adverse impacts (33 CFR 320-330; 40 CFR 35, 116, 117, 122, 124, 125,131,133, 220, 401, 403).
Community Environmental Response Facilitation Act	Requires identification of uncontaminated property and disclosure of information on possible hazards.	Investigations into the possible hazards and remediation studies.
Comprehensive Environmental Response, Compensation, and Liability Act	Requires reporting of releases and clean-up of hazardous substances.	Investigations into the possible hazards and remediation studies (40 CFR 373; 41 CFR 101-47).
Endangered Species Act (ESA)	Requires consultation with the U.S. Fish and Wildlife Service and / or National Marine Fisheries Service to ensure actions do not jeopardize threatened or endangered species or their critical habitat.	Analyze impacts on fish, wildlife, plants, habitats; ecosystem analysis, consultation with the U.S. Fish and Wildlife Service and / or National Marine Fisheries Service where potential impacts exists (50 CFR 402).
Environmental Quality Improvement Act	National policy for enhancement of environmental quality, assigns primary responsibility to state and local governments.	Underscores the need for quality NEPA process and analysis and environmentally sensitive decisions, consultation with state and local governments.
Federal Facility Compliance Act	Requires federal facilities comply with state and local environmental laws and federal environmental laws.	Ascertain applicable state and local laws and apply during the NEPA process and alternative selection.
Federal Records Act	Controls maintenance and disposal of government documents with historical value.	Identify potentially affected documents (e.g., in buildings being disposed of) and address during the NEPA process (36 CFR 1222, 1228, 1230, 1232, 1234, 1236, and 1238).
Fish and Wildlife Coordination Act	Requires consultation with the U.S. Fish and Wildlife Service (USFWS) on actions affecting stream modifications.	Study potential impacts on streams and consult with the USFWS.
Flood Disaster Protection Act	Prohibits some federal actions in areas subject to flood hazards.	Delineate floodplains and seek alternatives that do not promote floodplain development and flooding (see Executive Order (EO) 11988 and EO 11990).

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Exhibit 1.10 - *Applicable Statutes and Executive Orders (Continued)*

Law or Executive Order	*Requirements*	*Implications and Resulting Actions*
Historic Sites Act	Establishes National Historic Landmark (NHL) program and policy to preserve sites, buildings and objects significant in history.	Consider impacts on NHLs (36 CFR 65).
National Environmental Policy Act of 1969 (NEPA)	Requires federal agencies to consider and document environmental impacts during planning and disclose them in a public document.	Consider impacts on the quality of the human environment guided by national policy (40 CFR 1500-1508).
National Historic Preservation Act (NHPA)	Requires federal agencies to identify historic properties potentially affected by their actions and to consult with the State Historic Preservation Officer and others about alternatives, the effects, and mitigation.	Conduct surveys to identify historic properties, determine potential effects, consult others and execute and implement agreements (36 CFR 800; also 36 CFR 60, 61, 65, 68).
Native American Graves Protection and Repatriation Act	Requires consultation with Indian tribes and the repatriation of human remains, cultural items, and other items. Requires development and implementation of a Plan of Action for treatment.	Identify culturally affiliated Tribes or groups, consult with them, seek to develop plans of action, document the results during the NEPA process and implement as mitigation (43 CFR 10).
Resource Conservation and Recovery Act (RCRA)	Regulates hazardous and solid waste, and underground storage tanks.	Investigations into the possible hazards and remediation studies (40 CFR 260-281).
Safe Drinking Water Act	Sets standards for drinking water quality and regulates activities affecting drinking water supplies.	Analyze existing water quality and potential impacts on it (40 CFR 141).
Superfund Amendments and Reauthorization Act	Requires plans for cleanup of contaminated sites, and disclosure to the public of hazardous materials and processes.	Investigations into possible hazards and remediation studies (40 CFR 373).
Toxic Substances Control Act	Regulates chemical substances, including polychlorinated biphenyls (PCB)s and asbestos.	Consideration during the NEPA process (40 CFR 761).
EO 11514 Protection and Enhancement of Environmental Quality	Requires agencies to monitor, evaluate, and control activities to protect and enhance the quality of the environment.	Underscores the need for quality analyses during the NEPA process and monitoring of mitigation measures.
EO 11593 Protection and Enhancement of the Cultural Environment	Requires agencies to identify, evaluate and protect historic properties.	Same requirements as National Historic Preservation Act (NHPA).
EO 11988 Floodplain Management	Requires federal agencies to evaluate the potential impacts of actions in a floodplain and consider alternatives to avoid adverse impacts.	Delineate floodplains and consider the impacts on floodplain values and potential development of floodplains. Consider alternatives to impacting floodplains.
EO 11990 Protection of Wetlands	Requires agencies to minimize destruction, loss or degradation of wetlands.	Delineate wetlands and consider alternatives that avoid and minimize impacts to wetlands and mitigation to minimize impacts.
EO 12088 Federal Compliance with Pollution Control Standards	To prevent, control and abate environmental pollution from federal facilities and activities.	Investigations into the possible hazards and remediation studies.

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Exhibit 1.10 - *Applicable Statutes and Executive Orders (Continued)*

Law or Executive Order	*Requirements*	*Implications and Resulting Actions*
EO 12372 Intergovernmental Review of Federal Programs	To provide for review of its actions by state and local elected officials	Consult with state and local governments during the NEPA process
EO 12898 Federal Actions to Address Environmental Justice (EJ) in Minority Populations and Low-Income Populations	Requires federal agencies to identify and address any disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations.	Conduct social impact analyses, identify potentially affected populations, involve them during the NEPA process, make adjustments in public involvement to accommodate them, seek alternatives that avoid disproportionately adverse impacts.
EO 13006 Locating Federal Facilities on Historic Properties in our Nations Central Cities	Requires federal agencies to give priority to the use of historic buildings in historic districts in central business areas.	Identify historic buildings in central business areas, analyze their use potential, consider as priority alternatives during the NEPA process.
EO 13007 Indian Sacred Sites	Requires federal agencies to avoid where possible impeding access to, or physically damaging, Indian sacred sites.	Consult with Indian Tribes during the NEPA process to identify possible impact and respect confidentiality of information on sacred sites.
EO 13166 Involving Access to Persons with Limited English Proficiency (LEP)	Requires federal agencies to improve access to federally conducted and federally assisted programs and activities for persons who, as a result of national origin, are limited in their English proficiency.	Conduct social impact analyses, to identify if LEP populations are present and, if so, take reasonable steps in public involvement activities to make project information more accessible to LEP populations.
District of Columbia Public Law 8-36, The Environmental Policy Act of 1989	Requires that all District of Columbia agencies consider the environmental impact of all proposed major actions before issuing any approvals for them.	Building permit applicants are required to submit an Environmental Intake Form with their application to determine if an Environmental Impact Screening is required. If an Environmental Impact Screening is required, an interagency review team would look over the applicants' Environmental Impact Screening Form and make a determination.
The District of Columbia Hazardous Waste Management Act of 1977	Regulates the generation, storage, transport, treatment, and disposal of hazardous wastes and the fuel produced from and containing hazardous wastes.	Makes it unlawful to own, construct, substantially alter, or operate a hazardous waste facility or participate in hazardous waste storage, transport, treatment, etc. without a permit issued by the Mayor for the facility, site, or activity.

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2.0 ALTERNATIVES ANALYSIS

DOS identified, developed, and analyzed the No Action Alternative and six action alternatives that could potentially satisfy the proposed action's purpose and needs. In developing and analyzing alternatives, DOS consulted with regulatory and resource agencies at the Federal and district levels and with the public. During the alternatives development process, five action alternatives were dismissed because they did not meet the needs and requirements as well as the Preferred Action Alternative did.

DOS has identified a Preferred Action Alternative which it considers would best fulfill its statutory mission and responsibilities, while giving consideration to economic, environmental, technical, and other factors. In identifying its Preferred Action Alternative, DOS judges it has identified the environmentally preferable alternative because it best meets the purpose and needs for the study; causes the least damage to the biological and physical environment; and best protects, preserves, and enhances the historic, cultural, and natural resources of the study area. The Preferred Action Alternative and No Action Alternative were retained for further consideration and more detailed analysis.

Chapter 2 presents the alternatives analysis. It introduces the range of reasonable action alternatives developed to meet the study's purpose and needs and identifies DOS's preferred action alternative for further study. It identifies those alternatives retained for or dismissed from more detailed study and the reasons for their retention or dismissal.

The regulations on implementing the NEPA (40 CFR 1502.14) require that the lead agency:

a. Rigorously explore and objectively evaluate all reasonable alternatives and briefly discuss the reasons for elimination of alternatives from detailed study.

b. Devote substantial treatment to each alternative considered in detail, including the proposed action, so that reviewers may evaluate their comparative merits.

c. Include reasonable alternatives not within the jurisdiction of the lead agency.

d. Include the alternative of no action.

e. Identify the agency's preferred alternative or alternatives, if one or more exists, in the DEIS and identify such alternative in the FEIS, unless another law prohibits the expression of such a preference.

f. Include appropriate mitigation measures not already included in the proposed action or alternatives.

2.1 SELECTION OF WRAMC AS PROPOSED FMC SITE

The site selection process for a new FMC was conducted by DOS and the NCPC. In 2003, NCPC completed the Foreign Missions in the District of Columbia Future Location Analysis, which identified opportunities and recommended regulatory changes to guide the future location of foreign missions within the District of Columbia. The analysis recommended creating a new chancery center. Potential FMC sites identified in the analysis consisted of:

◊ U.S. Naval Security Station, Nebraska and Massachusetts Avenue—38 acres.

◊ St. Elizabeth's Hospital, Alabama Avenue, SE, undefined acreage available resulting from a planned redevelopment of the campus.

- ◊ Armed Forces Retirement Home (AFRH), North Capital Street & Michigan Avenue—77 acres.

- ◊ South Capitol Street Corridor/Anacostia River waterfront, specifically the Southeast Federal Center (10 acres) and the Anacostia Naval Station (14 acres). These areas offered potential for smaller or "mini" FMC campuses.

The U.S. Naval Security Station was subsequently dismissed from further consideration due to the presence of the newly established, and rapidly expanding, U.S. Department of Homeland Security (DHS) at that location.

St. Elizabeth's Hospital, formerly owned by the U.S. Department of Health and Human Services, was turned over to the General Services Administration (GSA) as excess property in 2004. In 2007, GSA issued a Notice of Intent to prepare an EIS to redevelop the St. Elizabeth's Campus to house the headquarters of DHS. Given the planned redevelopment by GSA, St. Elizabeth's was dismissed from consideration for a FMC (NCPC, 2003).

Based on the conclusions of the Future Location Analysis, NCPC revised the Federal Elements of the Comprehensive Plan for the National Capital in 2006. The plan lists two potential sites for a new chancery center: the AFRH and the South Capitol Street Corridor. The Plan cites the possibility for either federally owned and/or privately owned sites along the South Capitol Street Corridor.

DOS developed criteria for selecting a site. The criteria stated that a future center must:

- ◊ Be located in the District of Columbia;

- ◊ Be a minimum of 15 acres in size;

- ◊ Be a contiguous parcel of land to create a campus setting that will meet security and marketability/desirability needs;

- ◊ Have existing utility infrastructure; and

- ◊ Provide convenient access to major traffic arteries and amenities.

Federally owned property in the South Capitol Street Corridor/Anacostia River waterfront was subsequently dismissed from further consideration by DOS and NCPC because security and marketability needs identified by DOS for the new center would be better met by a larger site (>15 acres) with general similarity to the ICC.

The District of Columbia government, which has a continuing concern regarding the loss of property from the tax roll due to federal ownership, supported the development of a new FMC on federal land, which is already tax exempt. Therefore, due to: 1) local government preference,

2) the rapidly rising cost of private land in the District of Columbia during the national housing and economic expansion, and 3) the limited availability of sufficiently large parcels, privately owned property (both in the South Capitol Street Corridor and the investigation of other privately owned sites) was dismissed from further consideration (NCPC, 2006).

In 2005, the Department of Defense announced the closure of the WRAMC as part of the BRAC process. WRAMC met the size and federal ownership criteria for a new center and was added into consideration in March 2006.

DOS and NCPC dismissed the AFRH from further consideration and selected WRAMC as the preferred location because the WRAMC site is more marketable than the AFRH site; the WRAMC site is closer to existing concentrations of chanceries; and, at WRAMC, the DC-LRA site would provide desirable amenities in a pedestrian-accessible adjacent location.

2.2 MASTER PLAN ALTERNATIVES IDENTIFICATION AND DEVELOPMENT

DOS identified and developed potential design alternatives for WRAMC through collaborative planning and design work sessions with other federal and district agencies with direct or indirect jurisdiction over the proposed action, or an interest or special expertise, at key milestones to receive feedback and suggestions for improvement. The first four work sessions focused on individual components that would compose the range of reasonable action alternatives considered for furthering the study purpose and fulfilling the needs. Components common to the action alternatives consisted of cost-neutral funding, a minimum 50-year design life for utilities, on-lot stormwater management, parking guidelines, and street design (see Section 1.2).

Site and individual lot development parameters (size, floor area ratio, building coverage and height restrictions) developed for each campus zone would not vary between the action alternatives. Under the action alternatives, the existing historic perimeter fence along 16th Street, Alaska Avenue, and Fern Street would be retained. The existing landscape on the west boundary of the site would be enhanced to create a 50-foot vegetated buffer, and the tree canopy would be preserved to the extent reasonably possible. Access to individual lots would be internal to the campus.

The conditions in the study area and environmental features on the site of the former WRAMC were reviewed with work session participants to inform the alternatives identification process, with an emphasis on cultural resources, vegetation, topography, site contamination, other land use planning initiatives, and traffic.

The components that varied between the action alternatives were presented at the work sessions and consisted of:

- ◊ **Options for phasing development** – To allow for cost-neutral funding, the proposed action would be developed in phases, in which assignment of lots in one phase would

finance infrastructure development for that phase and for some of the next phase. Phasing also allows the most time for marketing historic buildings for reuse. Options for phasing development were identified and evaluated during the alternatives analysis.

◊ **Street layout** – Street layouts were considered to maximize site efficiency.

◊ **Green space design** – A strong preference was expressed by DOS and other Federal and District agencies to incorporate green space as an amenity for increasing the marketability and desirability of the FMC. Designs for green space were identified and evaluated.

◊ **Site access** – The number and location of access points were identified and evaluated to provide the most efficient traffic flow and vehicle and pedestrian connections between the FMC and the DC-LRA development and the surrounding neighborhoods.

Early in the process of identifying, developing, and analyzing alternatives that could potentially further the proposed action's purpose and satisfy its needs, assessment criteria were developed to help differentiate the alternatives (exhibit 2.1). The assessment criteria consisted of: 1) maintaining and enhancing the existing site character, 2) responsiveness to the concerns raised during scoping, 3) minimizing the potential impacts to cultural resources, and 4) maximizing the marketability of the FMC as a whole and individual parcels by allowing development flexibility.

2.3 ALTERNATIVES RETAINED FOR FURTHER CONSIDERATION AND DETAILED STUDY

Two alternatives were retained for further consideration and detailed study: the No Action Alternative and the Preferred Action Alternative.

Exhibit 2.1 - *Alternatives Assessment Criteria*

Maintains and enhances the existing site character	• Creates a denser zone north of Dahlia Street and a less dense zone south of Dahlia Street, complementing the proposed DC-LRA zoning. • Provides a strong east-west connection between DC-LRA and FMC portions of the former WRAMC by vehicular, bicycle, and pedestrian travel via Dahlia Street.
Addresses community concerns raised during scoping	• Creates a landscaped park around Memorial Chapel, enhancing the site buffer and historic building setting. • Maximizes tree preservation on the western half of the site. • Provides an open campus with vehicular and pedestrian connectivity between adjacent communities, the FMC, and the DC-LRA property.
Minimizes cultural resource impacts	• Retains historic Building 57/Memorial Chapel for adaptive reuse. • Allows for the potential reuse of individually eligible historic resources: Building 40 (Walter Reed Army Institute of Research), Building 41 (Old Red Cross Building), and Building 52 (Medical Ward). Viability of reuse is dependent upon marketability. • Alternative reviewed and supported by coordinating Federal cultural resource agencies (NCPC, CFA).
Maximizes marketability by allowing the greatest development flexibility	• The variety of lot sizes provides options for DOS to market to foreign missions; parcels can easily be combined to form larger lots. • The boulevard design of Dahlia and 14th Streets provides parity between lots; all lots have important street frontage and orientation.

2.3.1 No Action Alternative

Under the No Action Alternative, DOS would not take ownership of the 43.5 acre portion of the former WRAMC and would not create a master plan to develop the FMC. DOS would face continued challenge in facilitating the provision of adequate and secure facilities for foreign missions. The lack of readily available parcels within the District of Columbia for the development of foreign mission facilities would persist, and the high demand for foreign mission facilities would continue to grow. DOS's inability to reciprocally acquire properties in other countries would increase and a delay in updating U.S. diplomatic and consular properties abroad to meet modern security requirements would continue.

The No Action Alternative was retained for detailed study and the consequences of the No Action Alternative were fully developed for the year 2032 to demonstrate the full impact of taking no action. This provides a baseline comparison with the action alternatives. The year 2032 represents the completion of the planned build out of the FMC over an approximate 20-year period beginning with the initiation of the EIS process in 2012.

2.3.2 Alternative 1: Preferred Action Alternative

The Preferred Action Alternative would provide a maximum of 24 lots for chancery development (exhibit 2.2). In the northwest quadrant, historic Building 57/Memorial Chapel would be retained for adaptive reuse. Green space would surround the chapel and existing trees of good condition in the quadrant would remain undisturbed.

On the eastern portion of the site, historic Building 52/Medical Warehouse and Clinic, Building 40/Walter Reed Army Institute of Research, and historic Building 41/Old Red Cross Building could remain for potential adaptive reuse, depending on marketability. The location of 13th Place would either remain the same, or be moved slightly to the east, in alignment with Building 41 (requiring the provision of a new entry in the existing perimeter fence). These variations for 13th Place provide flexibility to adjust parcel sizes to support the marketability and programmatic requirements of interested foreign missions.

Under the Preferred Action Alternative, Dahlia Street and 14th Street would be developed as boulevards supporting pedestrian, bicycle and vehicular traffic connections to the surrounding neighborhoods. In the southwest quadrant, the boulevard landscaping bordering 14th Street would be widened to create green space replacing the existing parking lot. This low-lying green space would assist with the filtration of rain water from the FMC reducing stormwater runoff.

2.4 IDENTIFICATION OF DOS'S PREFERRED ALTERNATIVE

Alternative 1 was identified as the Preferred Action Alternative because it furthers the purpose of the project and satisfies the needs for the project while best: 1) maintaining and enhancing the existing site character of the former WRAMC; 2) addressing community concerns raised during

Exhibit 2.2 - *Preferred Action Alternative*

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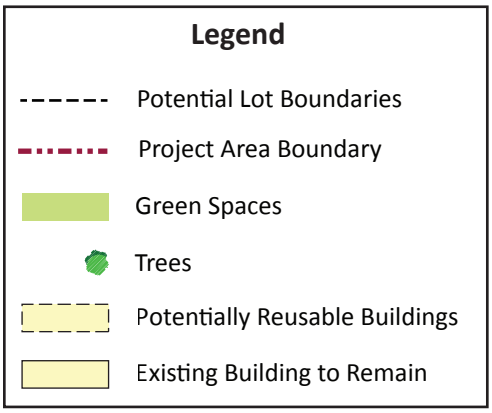
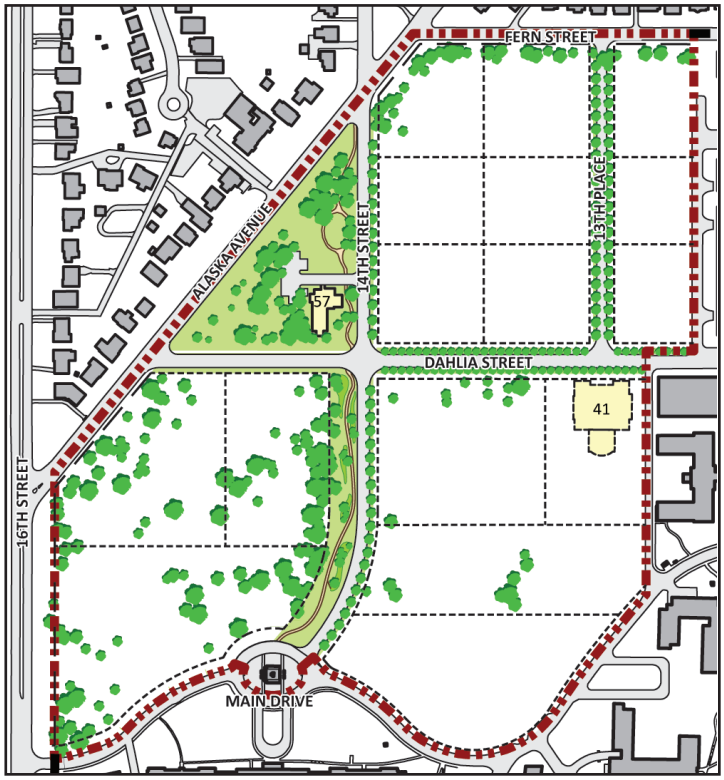
Exhibit 2.2 - *Preferred Action Alternative (Continued)*





Variation: Center 13th Place on Building 41

Variation: 13th Place remains in existing alignment

scoping; 3) minimizing potential impacts to cultural resources; and 4) maximizing marketability by allowing the greatest flexibility in developing the site.

The No Action Alternative would not further the purpose of the project to prepare a master plan to establish a FMC at the former WRAMC. The No Action Alternative would not satisfy the project needs to: 1) reduce the increasingly high demand for foreign mission facilities in the District of Columbia; 2) increase the supply of readily available parcels for development or redevelopment of foreign mission facilities; nor 3) improve DOS's ability to reciprocally acquire properties in other countries.

2.5 ALTERNATIVES CONSIDERED BUT ELIMINATED FROM DETAILED STUDY

Five other action alternatives were developed during the alternatives identification process but dismissed from further consideration and detailed study.

2.5.1 Alternative 2

In the northwest quadrant, Alternative 2 would retain Historic Building 57/Memorial Chapel for adaptive reuse, and provide two lots for development (exhibit 2.3). In the southwest quadrant, Alternative 2 would provide up to five lots. The existing cul-de-sac would be converted to a one-way access road surrounding an orthogonal open space.

In the northeast quadrant, Elder Street would be extended from the DC-LRA site west to 14th Street. 13th Place would be moved to the east and terminated at Elder Street. Several lots would be organized around a central linear green space. Historic Building 52/Medical Warehouse and Clinic could remain for potential adaptive reuse.

Alternative 2 would provide east-west and north-south linear green spaces in the southeast quadrant. Historic Building 41/Old Red Cross Building and an historic portion of Building 40/ Walter Reed Army Institute of Research could remain for potential adaptive reuse. Lots along Main Drive would be accessed from Main Drive.

Alternative 2 was eliminated from further consideration and detailed study because:

- ◊ Extending Elder Street to 14th Street would have created an unsafe traffic pattern by locating the intersection too close to the FMC entrance at the intersection of 14th Street and Alaska Avenue.

- ◊ In the northwest quadrant, the two parcels surrounding Historic Building 57/Memorial Chapel would result in a greater impact to cultural resources by: 1) creating visual incompatibility in proximity to the historic building, 2) obscuring views of the chapel from the surrounding areas, and 3) obscuring perspectives looking outwards from the building.

Exhibit 2.3 - *Alternative 2*

- ◊ The smaller lots sizes planned for the western half of the site would result in greater loss of significant trees.

- ◊ The alternative reduces marketability of the FMC by designing a layout that lacks a strong front door presence for many lots, and by locating green space where it would be perceived as private to adjacent chanceries and not a feature of the overall campus.

2.5.2 Alternative 3

In the northwest quadrant, Alternative 3 would retain Historic Building 57/Memorial Chapel for adaptive reuse, and provide two lots for development (exhibit 2.4). In the southwest quadrant, Alternative 3 would provide up to five lots. The existing cul-de-sac would be moved to the east and widened.

In the northeast quadrant, linear green space would extend between Fern Street and Dahlia Street. Historic Building 52/Medical Warehouse and Clinic could remain for potential adaptive reuse.

Alternative 3 would provide east-west and north-south linear green spaces in the southeast quadrant. Historic Building 41/Old Red Cross Building could remain for potential adaptive reuse. Because the linear green space would be centered to the west of the historic Building 40/ Walter Reed Army Institute of Research axis, Building 40 would be removed. Lots along Main Drive would be accessed from Main Drive.

Alternative 3 was eliminated from further consideration and detailed study because:

- ◊ In the northwest quadrant, the two parcels surrounding Historic Building 57/Memorial Chapel would result in a greater impact to cultural resources by: 1) creating visual incompatibility in proximity to the historic building, 2) obscuring views of the chapel from surrounding areas, and 3) obscuring perspectives looking outwards from the building.

- ◊ The smaller lots sizes planned for the western half of the site would result in greater loss of significant trees.

- ◊ The alternative reduces marketability of the FMC by designing a layout that lacks a strong front door presence for many lots, and by locating green space where it would be perceived as private to adjacent chanceries and not a feature of the overall campus.

2.5.3 Alternative 4

In the northwest quadrant, Historic Building 57/Memorial Chapel would be retained for adaptive reuse. Open green space would surround the chapel and existing trees in the quadrant would remain undisturbed (exhibit 2.5). In the southwest quadrant, Alternative 4 would provide up to six lots. The existing cul-de-sac would be moved to the east and converted to a one-way access road surrounding a square open space.

Exhibit 2.4 - *Alternative 3*

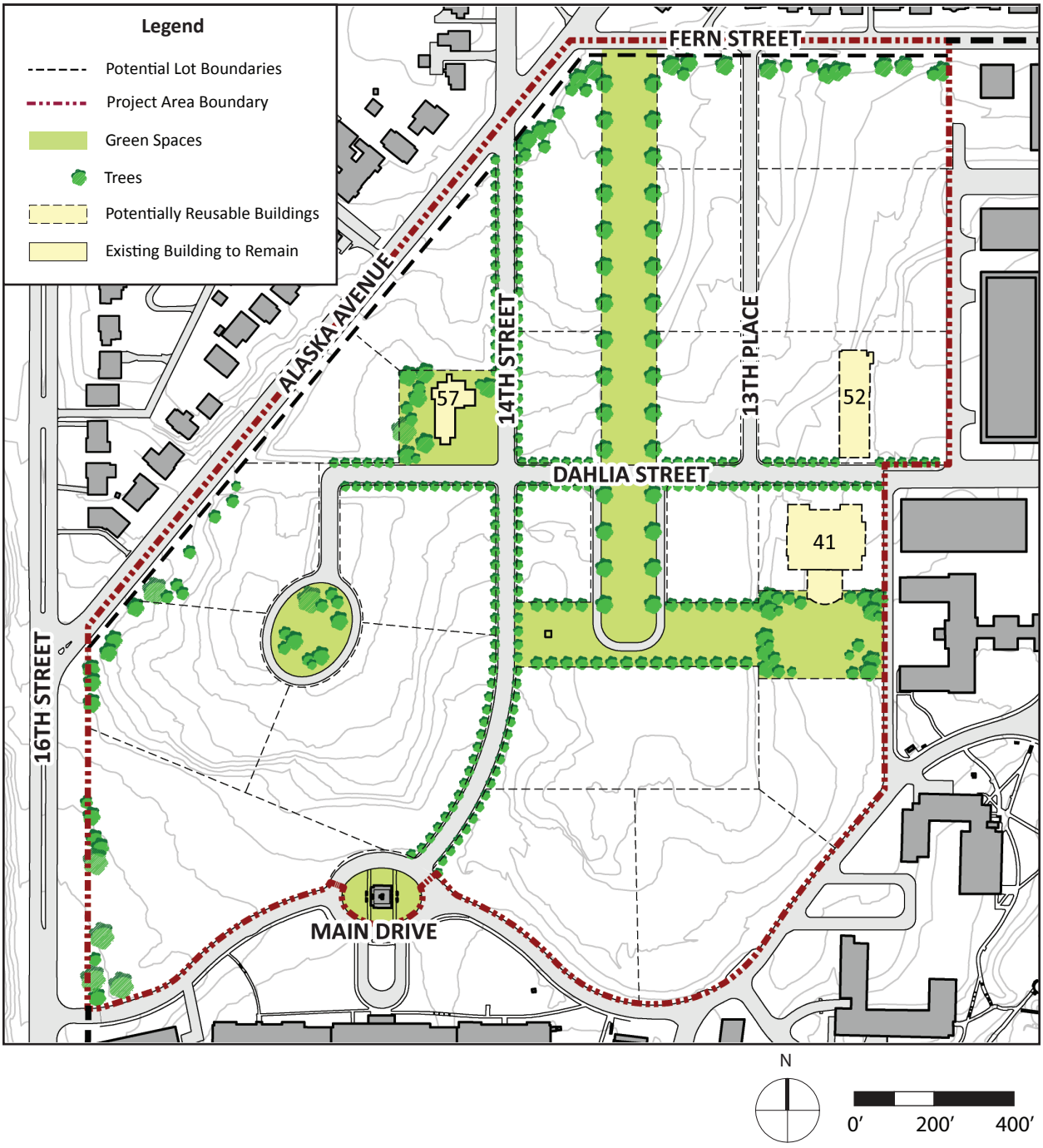


Exhibit 2.5 - *Alternative 4*

Alternative 4 would create boulevards extending north to south along 14th Street and 13th Place. 13th Place would be extended south to Main Drive. In the southwest quadrant, the boulevard landscaping bordering 14th Street to the west would be widened to create green space across the existing steep slope.

Because of the street layout, lot sizes under Alternative 4 would be relatively uniform. On the eastern portion of the site, historic Building 52/Medical Warehouse and Clinic and historic Building 41/Old Red Cross Building could remain for potential adaptive reuse.

Alternative 4 was eliminated from further consideration and detailed study because:

- ◊ The proposed intersection of 13th Place and Main Drive would create an unsafe traffic pattern because of the amount of traffic volume created and its location in proximity to other intersections along Main Drive.

- ◊ The proposed extension of 13th Place south of Dahlia Street would be close to Historic Building 41/Old Red Cross Building and could result in a cultural resource impact by reducing the building's reuse potential.

- ◊ The smaller lot sizes planned for the southwest quadrant would result in greater loss of significant trees.

- ◊ The site layout design would reduce marketability of the FMC by providing uniform lot sizes that lack flexibility for foreign missions who desire multiple adjacent lots.

2.5.4 Alternative 5

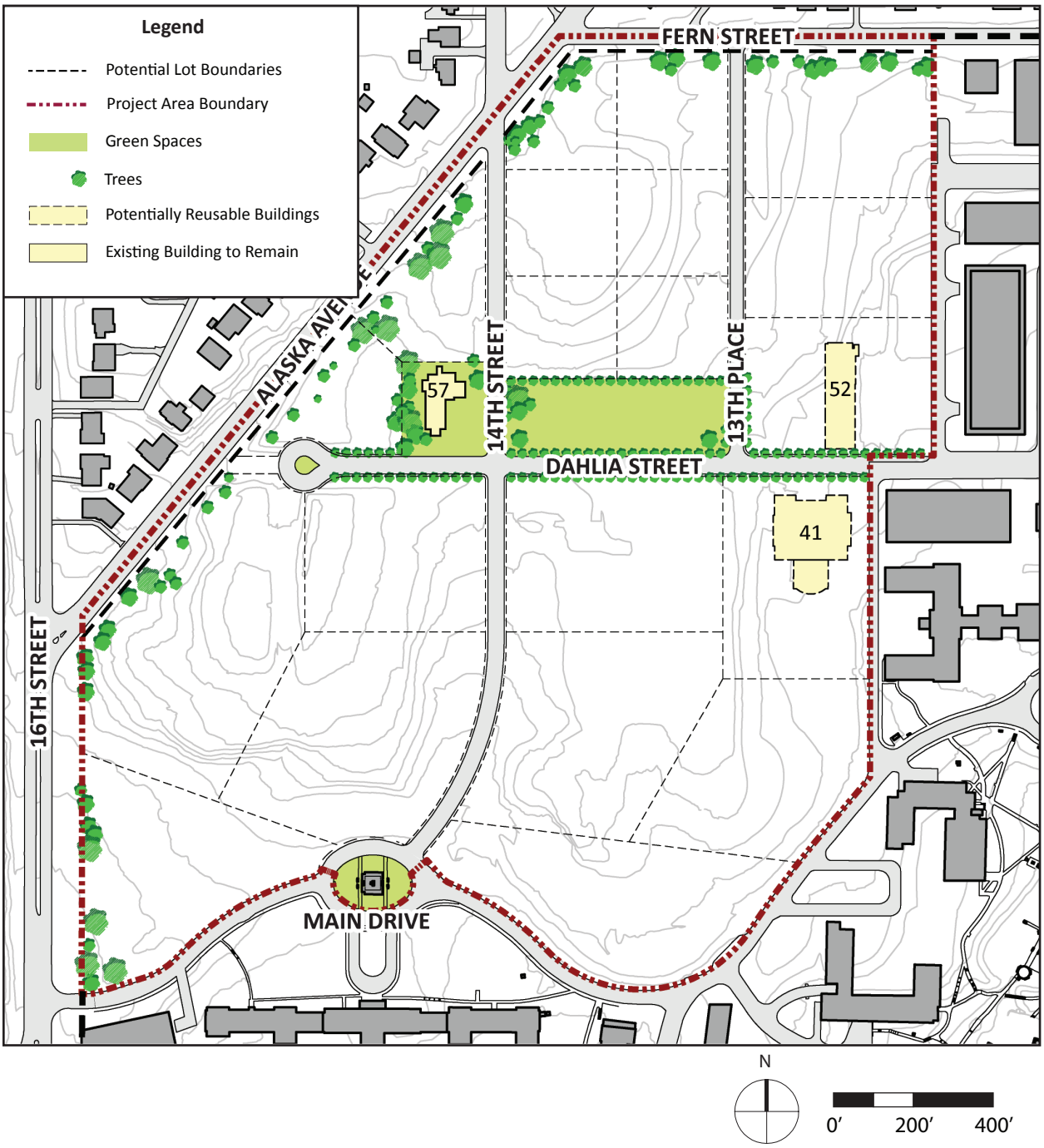
In the northwest quadrant, Alternative 5 would retain Historic Building 57/Memorial Chapel for adaptive reuse, and provide two lots for development (exhibit 2.6). In the southwest quadrant, Alternative 5 would provide up to four lots. The existing cul-de-sac would be removed. Dahlia Street would dead end before reaching Alaska Avenue.

In the eastern portion of the site, a single large open green space would be created north of Dahlia Street. Historic Building 52/Medical Warehouse and Clinic and historic Building 41/Old Red Cross Building could remain for potential adaptive reuse. In the southeast quadrant, fewer and larger parcels would be provided in comparison to other alternatives.

Alternative 5 was eliminated from further consideration and detailed study because:

- ◊ In the northwest quadrant, the two parcels surrounding Historic Building 57/Memorial Chapel would result in a greater impact to cultural resources by: 1) creating visual incompatibility in proximity to the historic building, 2) obscuring views of the chapel from surrounding areas, and 3) obscuring perspectives looking outwards from the building.

Exhibit 2.6 - *Alternative 5*



- ◊ The dead end on Dahlia Street before Alaska Avenue does not provide efficient vehicular connectivity between the FMC and the surrounding neighborhoods and important street connections.

- ◊ The green space design does not maximize site efficiency or marketability of the campus because the location reduces desirable street frontage available for chanceries and few parcels are oriented to the green space.

2.5.5 Alternative 6

In the northwest quadrant, Alternative 6 would retain Historic Building 57/Memorial Chapel for adaptive reuse, and provide two lots for development (exhibit 2.7). In the southwest quadrant, Alternative 6 would provide up to six lots. The existing cul-de-sac would be moved to the east and converted to a one-way access road surrounding a square open space.

Two additional square open green spaces would be created in the eastern half of the site. Historic Building 52/Medical Warehouse and Clinic and historic Building 41/Old Red Cross Building could remain for potential adaptive reuse. In the southeast quadrant, 13th Place would be extended south to Main Drive.

Alternative 6 was eliminated from further consideration and detailed study because:

- ◊ In the northwest quadrant, the two parcels surrounding Historic Building 57/Memorial Chapel would result in a greater impact to cultural resources by: 1) creating visual incompatibility in proximity to the historic building, 2) obscuring views of the chapel from surrounding areas, and 3) obscuring perspectives looking outward from the building.

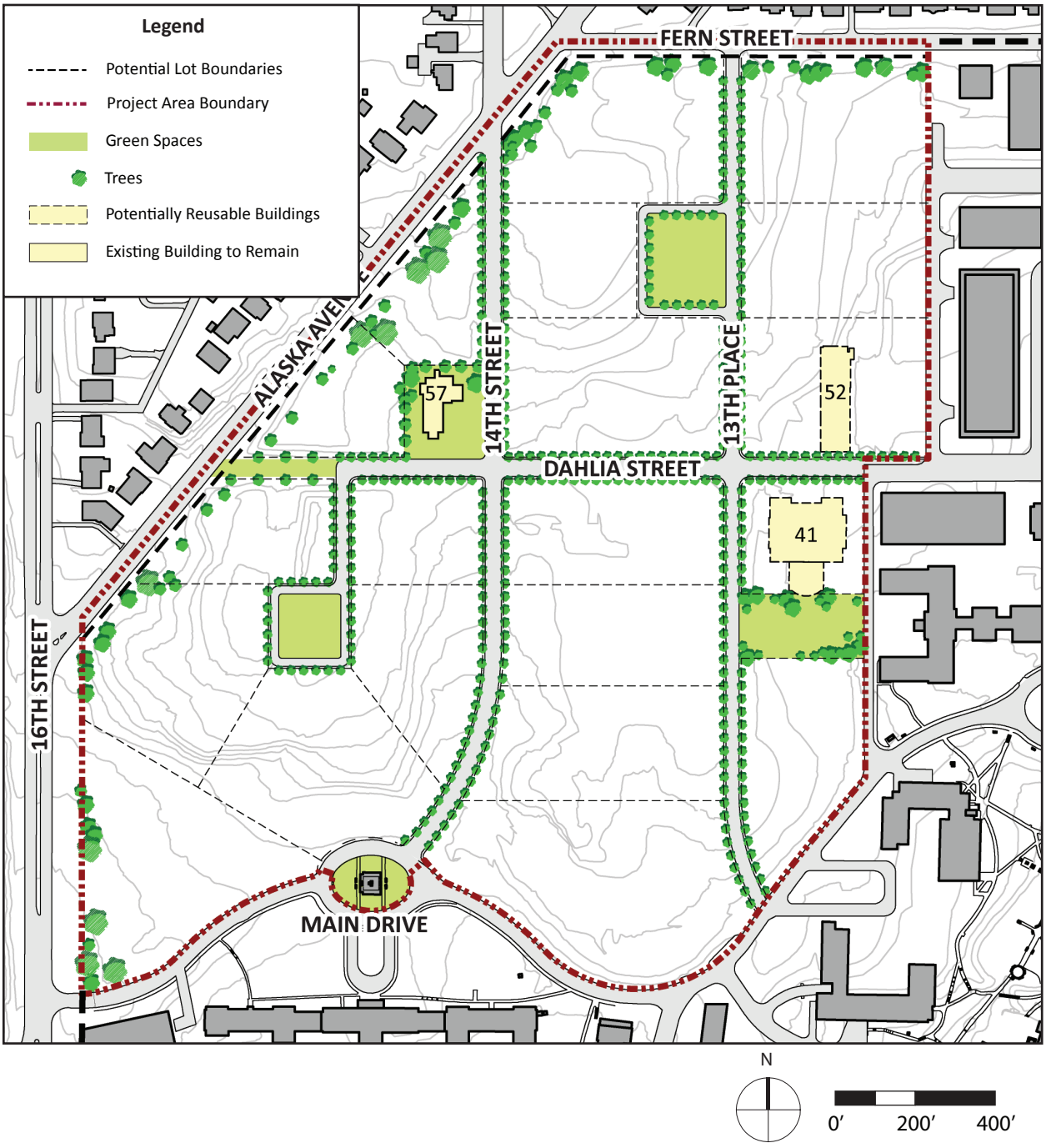
- ◊ The smaller lots sizes planned for the western half of the site would result in greater loss of significant trees.

- ◊ The proposed intersection of 13th Place and Main Drive would create an unsafe traffic pattern because of the amount of traffic volume created and its location in proximity to other intersections along Main Drive.

- ◊ The proposed extension of 13th Place south of Dahlia Street would be close to Historic Building 41/Old Red Cross Building and could result in a cultural resource impact by reducing the building's reuse potential.

- ◊ The site layout design would reduce marketability of the FMC campus by: 1) providing uniform lot sizes that lack flexibility for chanceries who desire multiple adjacent lots, and 2) orienting only a limited number of lots to the squares of desirable green space.

Exhibit 2.7 - *Alternative 6*



3.0 AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

Chapter 3 is an inventory of the affected environment and a discussion of consequences and potential mitigation measures resulting from the alternatives retained for detailed study. It succinctly describes the physical, biological, social, and economic environments of the area to be affected by the alternatives. It describes the impacts of the alternatives; the adverse effects that cannot be avoided if implemented; the relationship between short-term uses of the human environment and the maintenance and enhancement of long-term productivity; and any irreversible or irretrievable commitments of resources that would result if an alternative is implemented (40 CFR part 1502.16).

This chapter identifies the affected environment, potential environmental consequences, mitigation measures, and commitments associated with the implementation of the No Action and Preferred Action Alternatives retained for further consideration and detailed analysis. Potential impacts—both beneficial and adverse—were identified and, where possible, quantified through studies of the natural, social, and economic environments. Potential impacts include the direct impacts, indirect impacts, and cumulative impacts of the No Action and Preferred Action Alternatives.

DOS developed a study area of approximately 350 acres for the consideration of potential impacts to the social and economic environments in the area; a smaller area was used for the consideration of potential impacts to the natural environment (exhibit 3.1). The study area not only covers the land that would be used for the Preferred Action Alternative, but also the area that would potentially experience direct, indirect, and cumulative impacts from it.

Only those resources that have the potential to be impacted by the Preferred Action Alternative were analyzed. The following resources were not evaluated in this EIS:

- ◊ **Wetlands** – Wetlands are those areas that are inundated or saturated by surface water or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally consist of swamps, marshes, bogs, and similar areas (USACE, 1987). No wetlands or other Waters of the U.S. are found on the site of the former WRAMC.

- ◊ **Wild and Scenic Rivers** – The National Wild and Scenic Rivers System was created from the Wild and Scenic Rivers Act (16 U.S.C. 1271, et seq.) of 1968 to preserve certain rivers with outstanding natural, cultural, and recreational values in a free-flowing condition for the enjoyment of present and future generations. River segments designated by Congress or the U.S. Department of the Interior are classified as wild river areas, scenic river areas, or recreational river areas. The Act requires federal agencies to consider impacts of proposed actions on designated river segments. No wild or scenic rivers are in the study area.

Exhibit 3.1 - *Natural Resources Study Area*

3.1 PHYSICAL GEOGRAPHY

The physical geography or physiography of an area is a description of the physical features of the natural landscape. The physical geography and geology of the study area may influence the alternatives development and selection process as natural landforms and geologic features may determine the extent of environmental features and potential constraints to development or extraordinary engineering solutions.

The study area is along the eastern edge of the Piedmont Physiographic Province of the Appalachian Highlands. The Piedmont's topography is characterized by gently rolling hills and level uplands strongly dissected by streams that have steep valley walls (USGS, 2012).

The original topography of the study area has been extensively altered by grading and construction to create an urban and suburban area. The study area has an elevation range of over 100 feet, from 244 feet above mean sea level (MSL) near 16th Street to 352 feet above MSL near 14th Street and Alaska Avenue. The study area slopes to the south and west towards Rock Creek. Some steep slopes (over 30 percent) are found in the study area.

The No Action and Preferred Action Alternatives would not alter the existing physical geography of the study area. No substantial change in the profile or elevation of land within the study area would be likely to occur from the Preferred Action Alternative.

3.1.1 Climate

The District of Columbia is in the humid subtropical climate zone and has four distinct seasons. Summers are hot and humid with daily high temperatures in July and August averaging in the high 80 to low 90 degrees Fahrenheit range. Spring and fall are mild with high temperatures in April and October averaging in the high 60 degrees Fahrenheit. The average temperature in winter is 38 degrees Fahrenheit from mid-December to mid-February. The average annual precipitation in this area is approximately 40 inches of rain and average snowfall is 16 inches (NOAA, 2012).

The No Action and Preferred Action Alternatives would not impact, nor be affected by, the climate of the study area. The Preferred Action Alternative is not of a nature or scale to alter existing climate patterns.

3.1.2 Soils

According to the Soil Surveys for the District of Columbia, there are eight soil associations in the study area: Chillum-Urban Complex, Glenelg Variant, Manor Loam, Manor-Urban Land Complex, Urban Land-Chillum Complex, Urban Land-Manor Complex, Udorthents, and Urban Land (USDA, 1976). The predominant soil associations underlying the study area are Manor-Urban Land Complex, Urban Land-Chillum Complex, and Urban Land-Manor Complex. These soil associations are approximately 10 to 50 feet thick over metamorphic bedrock, and have been disturbed by grading and construction of buildings. These soil associations are moderately sloping, well drained, silty, and micaceous with a small amount of silty alluvium.

The permeability of these soil associations is between 0.6 and 2.0 inches per hour. There are no hydric soils or soils with hydric inclusions in the study area.

The No Action and Preferred Action Alternatives would not impact the remaining undisturbed soils in the study area as the areas of steep slopes would be protected from further development.

3.1.3 Geology

The study area is along the boundary between the Piedmont Physiographic Province on the northwest and the Coastal Plain Physiographic Province on the southeast. Bedrock of the Laurel Formation underlies the study area. The Laurel Formation is a gray, medium- to coarse-grained, moderately to well-foliated muscovite-biotite-quartz schist and gneiss and contains garnets and staurolite. Well records indicate that depth to bedrock is greater than 40 feet (Johnston, 1964). The formation weathers to form deep clayey to silty residual soils. Drillability of the rock is moderate. Overbreak of the rock during excavation is mostly moderate, but may be excessive depending on the orientation of excavation to joint systems (USGS, 1967).

No unique engineering constraints to construction are posed by the bedrock geology.

The No Action and Preferred Action Alternatives would not impact the geology of the study area. The Preferred Alternative consists of the redevelopment of an urban area.

3.2 WATER RESOURCES

3.2.1 Surface Waters

The study area is in the drainage basin of Rock Creek (exhibit 3.1). Rock Creek originates in Montgomery County, Maryland, flows south through the District of Columbia, and discharges to the Potomac River approximately five miles south of the study area. Surface runoff in the study area is collected by overland flow and an extensive storm sewer system and is discharged to Rock Creek.

The District Department of the Environment (DDOE) groups waters into Beneficial Use Classes. Rock Creek is classified as a Class B, C, D, and E stream. Class B waters are protected for secondary contact recreation and aesthetic enjoyment; Class C waters are protected for fish, shellfish, and wildlife; Class D waters are protected for human health related to consumption of fish and shellfish; and Class E waters are protected for navigation (DC Municipal Regulations and DC Register, 2010).

Rock Creek is designated as Special Waters of the District of Columbia (SWDC). Special waters are those that are of water quality better than needed for the current use or have scenic or aesthetic importance. The water quality in SWDC designated segments of surface waters shall be maintained at or above the current level by implementing the following: (a) existing nonpoint source discharges, stormwater discharges and storm sewer discharges to SWDC segment shall be controlled through implementation of best management practices and regulator programs; (b)

construction or development projects in which a SWDC designated segment is located, which may lead to pollution of the water, shall be permitted on a case-by-case basis to ensure that there are no long-term adverse water quality effects and that no impairment of the designated uses of the segment occurs; or (c) short-term degradation of water quality in a SWDC segment due to construction projects may be permitted provided that prior notice is given to the public and other local and federal government agencies, and provided that the builder of the construction project submits a report to the DDOE which summarizes the views, significant comments, criticisms and suggestions of the public and other local and federal government agencies and sets forth the specific responses in terms of modifications of the proposed action or an explanation for rejection of proposals made by the public and other local and federal government agencies (DCWASA, 2013).

Section 303(d) of the federal Clean Water Act and the EPA implementing regulations direct each state to identify and list waters, known as water quality limited segments, in which current required controls of a specified substance are inadequate to achieve water quality standards (WQSs). For each water quality limited segment, the state is to either establish a Total Maximum Daily Load (TMDL) of the specified substance that the waterbody can receive without violating WQSs, or demonstrate that WQSs are being met. Rock Creek is listed on the Section 303(d) list of impaired waters for 2010 and has an established TMDL for bacteria and organics and metals (DCWASA, 2013).

Rock Creek's water quality is impaired from sedimentation and other forms of non-point source pollution and from limited point source pollutants within its highly urbanized watershed. Two major sources of pollution are stormwater runoff and combined sewer overflows (CSOs); 28 CSOs drain directly into Rock Creek. Those 28 CSOs discharge an estimated 52 million gallons of untreated water into the creek every year, the majority of which comes from the large CSO outfall at Piney Branch. These discharges are a major source of damage to Rock Creek. The District of Columbia Water and Sewer Authority (DCWASA) has a stormwater discharge permit issued by the EPA for improving its stormwater management to improve water quality in Rock Creek. In 2009, the DCWASA began replacing portions of the combined sewer with separate storm sewers. At the time of this writing, the project is under construction (DCWASA, 2013).

The stormwater drainage system for the site of the former WRAMC and Preferred Action Alternative consists of catch basins, curb inlets, yard drains, manholes, sand filters, and 10- to approximately 36-inch-diameter pipelines that discharge to the District of Columbia's Luzon Avenue storm drainage tunnel. The tunnel, which enters the site of the former WRAMC at Georgia Avenue and Dahlia Street, runs southwest under the Rose Garden and discharges into Rock Creek Park.

The Energy Independence and Security Act of 2007 requires federal agencies to provide national leadership to reduce water quality problems from stormwater runoff. Section 438 specifically mentions that projects "….involving a federal facility with a footprint that exceeds 5,000 square feet shall use site planning, design, construction, and maintenance strategies for the property to

maintain or restore, to the maximum extent technically feasible, the predevelopment hydrology of the property with regard to the temperature, rate, volume, and duration of flow."

The No Action Alternative would not impact surface waters.

The Preferred Action Alternative would not impact surface waters. The water quantity controls for the Preferred Action Alternative would be in accordance with the District of Columbia Stormwater Management Guidelines and with Section 438 of the Energy Independence and Security Act of 2007.

Stormwater would be managed on-site at each individual chancery and on the site as a whole, including potential grey water re-use and bio-retention gardens. The stormwater system for road infrastructure would connect to the District of Columbia system.

The Preferred Action Alternative would not be allowed to increase the peak rate of stormwater runoff. The Preferred Action Alternative would be required to reduce the developed peak flows to predevelopment conditions through detention, reuse, and low impact development. To accommodate the infrastructure improvements outside of individual lots (i.e., roads, walks, open space, etc.); detention/water quality improvement areas would be designated adjacent to roads. With the incorporation of rainwater harvesting and water quality improvement measures into the network, peak discharge quantities can be controlled and managed to satisfy local regulations. Each individual parcel would be required to address stormwater requirements either via an independent facility or a centralized facility.

The stormwater management practices that would be implemented as part of the Preferred Action Alternative would have a long-term indirect beneficial impact on surface water by reducing stormwater runoff, improving water quality, and helping to comply with the TMDLs established for metals and bacteria.

3.2.2 Groundwater

Groundwater movement in the bedrock is primarily through secondary openings such as faults, joints, and bedding and cleavage planes. The water table is generally less than 50 feet in depth and unconfined. Well yields in the Laurel Formation range from 0.8 to 30 gallons per minute (gpm) and average 10 gpm. The average well depth is 198 feet. There are no known private well users in the study area (Johnston, 1964).

The No Action and Preferred Action Alternatives would not impact groundwater. The proposed action under the Preferred Alternative consists of the redevelopment of an urban area.

3.2.3 Floodplains

Federal protection of floodplains is afforded by Executive Order (EO) 11988, "Floodplain Management," and implemented under 44 CFR 9.00. These regulations direct federal agencies

to undertake actions to avoid impacts on floodplain areas by structures built in flood-prone areas. The Federal Emergency Management Agency (FEMA) has primary responsibility for identifying flood-prone areas.

According to FEMA, the western portion of the study area along Rock Creek is prone to inundation by a 100-year flood (i.e., an area that has a one percent chance of becoming inundated by peak flows during a given year) (exhibit 3.1).

The No Action and Preferred Action Alternatives would not impact floodplains and would be in compliance with EO 11988. The Preferred Action Alternative does not propose to construct structures in flood-prone areas.

3.3 VEGETATION

The study area has a diversity of vegetation. A detailed tree inventory of the area potentially affected by the Preferred Action Alternative was performed in late winter of 2013 and approximately 700 trees were identified and the tree sizes were recorded by diameter at breast height (dbh) measured 4.5 feet above the ground (exhibit 3.2).

The removal of trees in the District of Columbia is regulated by the Urban Forest Preservation Act of 2002. The act was passed by the Council of the District of Columbia and is administered by the District Department of Transportation (DDOT) through its Urban Forestry Administration. The purpose of the act is to protect the District of Columbia urban forest on both public and private land. Trees with a circumference of 55 inches or more are classed as special trees. Special trees cannot be cut down, topped or destroyed without a permit issued by the Mayor's office and mitigated using one of two options (DDOT, 2013):

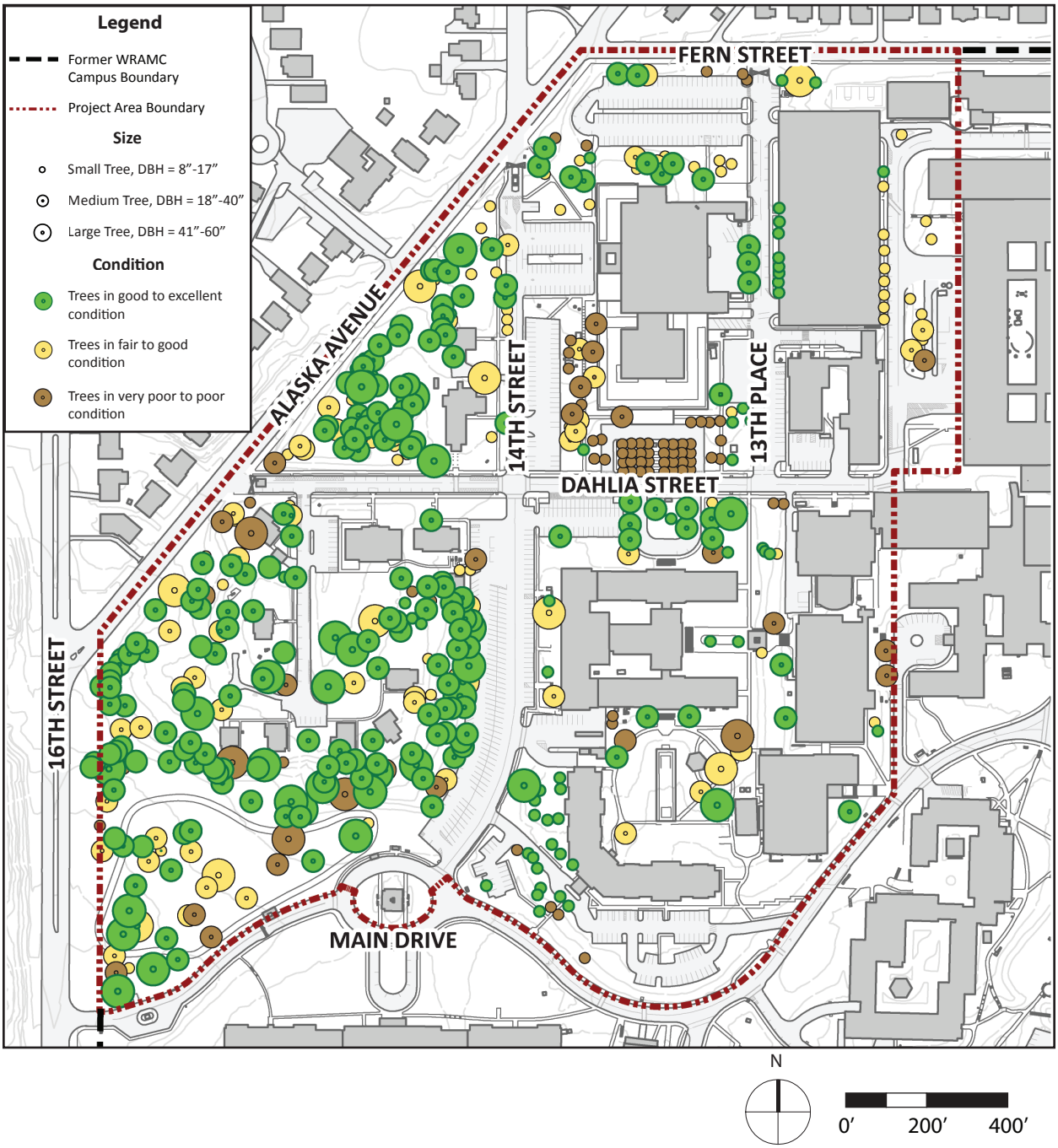
1. Replacement trees using the formula:
   Inches of circumference ÷ 3.14(pi) = Inches in diameter
   Inches in diameter ÷ 2 inches = number of two-inch caliper replacement trees

2. Monetary payment to the Tree Fund of $35 per inch of circumference.

The regulation requires that an International Society of Arboriculture Certified Arborist inspects each tree and makes a determination as to the quality of the tree. Trees designated as hazardous or in poor quality do not typically need to be mitigated. As a federal agency, DOS is not required to comply with this District of Columbia regulation; however, DOS will emphasize retaining the tree canopy in the development of the site.

The wooded areas are second growth forests, as original forest no longer exists. These areas contain vegetation common to the region and are predominantly composed of mature Oak and Tulip Poplar trees. Many of them are more than 100 years old and measure 50 inches in dbh (exhibit 3.2). Native trees consist of Red Oak, Tulip Poplar, Red Maple, American Elm, American Holly, Black Walnut, Black Cherry, Hickory, and Southern Magnolia.

Exhibit 3.2 - *Existing Trees*



The understory in the wooded areas consists of shrubs, poor quality turf, and dense patches of invasive species. Frequently encountered invasive species are English Ivy, Winged Euonymus, Norway Maple, and Mock Orange. None of these areas contain native understory; only the overstory is characteristic of a native canopy and forest cover.

The eastern portion of the area potentially affected by the Preferred Action Alternative is maintained landscape. While the majority of this vegetation has been planted within the last 20 years, a few areas of mature vegetation remain. Consistent with practices of the International Society of Aboriculture, the tree inventory did not identify individual trees in this area less than 8-inch dbh. Species in this area consist of Red Maple, Kousa Dogwood, London Plane Tree, American Holly, American Linden, Pin Oak, Willow Oak, Loblolly Pine, Bradford Pear, and Kwanzan Cherry.

Along areas of the western and northern perimeters of the area potentially affected by the Preferred Action Alternative, evergreen species have been planted for screening. The evergreen species are predominantly Eastern Hemlock trees but also consist of Leyland Cypress, Black Pine, and Eastern White Pine.

The No Action Alternative would not impact vegetation.

The Preferred Action Alternative includes the preservation of a considerable number of Special Trees providing canopy coverage and a 50-foot wide vegetative buffer along Alaska Avenue and Fern Street. The Preferred Action Alternative would impact vegetation by removing trees.

3.4 WILDLIFE

Wildlife in the study area is limited to those species adapted to living in an urban environment. Species of birds typical of urban settings consist of the House Sparrow, Bluejay, European Starling, Northern Cardinal, Common Crow, Gray Catbird, Mockingbird, Mourning Dove, and pigeon. Mammal species common to urban environments consist of the Eastern Gray Squirrel, mice, rats, opossum and raccoons.

The No Action Alternative would not impact wildlife. The Preferred Action Alternative would not permanently impact wildlife because it consists of the redevelopment of an urban site. Species found in the study area are adapted to the urban environment. Some wildlife may be temporarily displaced by construction activities.

3.5 THREATENED AND ENDANGERED SPECIES AND SPECIES OF CONSERVATION CONCERN

The U.S. Endangered Species Act (ESA) of 1973, as amended, provides protection for those species that are listed as endangered or threatened under the ESA. The ESA grants the U.S. Fish and Wildlife Service (USFWS) prime responsibility in administering the species designations and protections granted under the Act. “Endangered” means that a species is in danger of extinction

throughout all or a significant portion of its range. "Threatened" means that a species is likely to become endangered in the foreseeable future.

"Critical habitat" is a term defined and used in the ESA to designate a specific geographic area(s) that is essential for the conservation of a threatened or endangered species and that may require special management and protection. Critical habitat may include an area that is not currently occupied by the species but would be needed for its recovery.

The Bald and Golden Eagle Protection Act (16 U.S.C. 668-668c) enacted in 1940 protects bald and golden eagles. The Act prohibits anyone, without a permit issued by the Secretary of the Interior, from "taking" bald and golden eagles, including their parts, nests, or eggs. The Act defines take as "pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, molest, or disturb." According to the USFWS, bald eagles have the potential to occur within the study area. In addition to immediate impacts, this definition covers impacts that result from human-induced alterations initiated around a previously used nest site during a time when eagles are not present if, on the eagle's return, such alterations agitate or bother an eagle to a degree that interferes with or interrupts normal breeding, feeding, or sheltering habits and causes injury, death, or nest abandonment (USFWS, 2013).

According to the USFWS, the Hay's Spring amphipod is listed as endangered in the District of Columbia (USFWS, 2012). The Hay's Spring amphipod is a federally endangered species that is endemic to the springs of Rock Creek Park. There is little known about the biology, population dynamics, or ecological community of this amphipod. It spends its life in a shallow groundwater zone, moving in water that percolates among sand grains and gravel until it is flushed out by large volumes of water into a spring.

According to the DDOE, there are no threatened or endangered species, and no ecologically sensitive habitats in the study area (DDOE, 2012).

The No Action and Preferred Action Alternatives would not impact threatened and endangered species, species of conservation concern, protected species, or critical habitat (USFWS, 2013; DDOE, 2012).

3.6 TRANSPORTATION

3.6.1 Vehicle Traffic

3.6.1.1 Streets

The streets in the study area are designed as a grid pattern, with a few roads that bisect the network diagonally. Intersections are at regular intervals and most streets in the study area provide two-way travel. The street network provides good traffic circulation throughout the study area, allowing for multiple routing options for drivers and dispersing vehicles.

The primary streets in the study area:

13th Street is a two-lane north-south local road that is bisected by the former WRAMC, connecting with Fern Street to the north and Aspen Street to the south. Average daily traffic volumes for 13th Street are not available. Limited parking is available along both sides of the street.

14th Street is a two-lane north-south road that passes through the former WRAMC. South of Aspen Street, 14th Street is classified as a minor arterial with a dedicated bicycle lane in each travel direction. Average daily traffic volumes along this portion of 14th Street are approximately 6,100 vehicles per day southbound. North of Alaska Avenue, 14th Street is a two-lane local road with an average daily traffic volume of 2,700 vehicles. A portion of 14th Street south of Alaska Avenue traverses the former WRAMC to Main Drive.

16th Street is a four-lane north-south principal arterial that borders a portion of the western edge of the former WRAMC. It has an average daily traffic volume of 31,000 vehicles per day south of Aspen Street. 16th Street has a median, which is converted into center left-turn lanes at several intersections. Limited parking is available along both sides of the street, although parking is generally prohibited during peak hours.

Alaska Avenue is a four-lane northeast-southwest principal arterial that borders the northwestern edge of the former WRAMC. It has an average daily traffic volume of 4,700 vehicles per day north of Fern Street. Limited parking is available along both sides of the street.

Aspen Street is a two-lane east-west road that borders the southern edge of the former WRAMC. West of Georgia Avenue, Aspen Street is classified as a minor arterial with an average daily traffic volume of 4,700 vehicles per day near its intersection with 16th Street. East of Georgia Avenue, the street is classified as a minor arterial with an average daily traffic volume of 3,600 vehicles. On-street parking is available along both sides of Aspen Street.

Dahlia Street is a two-lane east-west local road that runs through the former WRAMC. It has an average daily traffic volume of 2,200 vehicles east of Piney Branch Road. Limited parking is available along both sides of the street.

Fern Street is a two-lane east-west local road that borders the northern edge of the former WRAMC. It has an average daily traffic volume of 2,200 vehicles near its intersection with 16th Street and 1,000 vehicles per day near its intersection with Georgia Avenue. Limited parking is available along both sides of the street.

Georgia Avenue is a four-lane north-south principal arterial that borders the eastern edge of the former WRAMC. It has an average daily traffic volume of 27,100 vehicles south of Aspen Street. Georgia Avenue has a wide right-most lane to accommodate heavy vehicle traffic along the corridor. Limited parking is available along both sides of the street, but parking is generally prohibited at these locations during peak hours.

Luzon Avenue is a two-lane northeast-southwest local road in the southern part of the study area. Average daily traffic volumes for Luzon Street are not available. Limited parking is available along both sides of the street.

Access to the former WRAMC was provided through gates; several of these gates have been closed following the relocation of the WRAMC. Currently, only the gate at 16th Street and Main Drive is operational and provides access to the remaining on-site uses.

On-street parking is provided throughout the study area along all streets. Most parking spaces require residential parking permits, though some spaces are metered or unregulated. Other on-street parking is generally prohibited during peak periods (typically 7:00 to 9:30 am and 4:00 to 6:30 pm) but unregulated during off-peak periods.

Vehicular access for the Preferred Action Alternative would be provided at four intersections along the border of the former WRAMC and at the Dahlia Street and Main Drive entrances to the DC-LRA. The proposed access points correspond to previously used, and now closed, access locations from the former WRAMC. The Dahlia Street access point at Alaska Avenue was closed by the Army in 2001, but the plan proposes that this be reopened.

Two entrances/exits to the Preferred Action Alternative are provided along Alaska Avenue, one along Fern Street, and one along 16th Street. The driveways would be stop-controlled, with the exception of the one provided along 16th Street.

Access points where bus service is anticipated would be designed to Washington Metropolitan Area Transit Authority (WMATA) guidelines.

The No Action Alternative would not impact parking.

The Preferred Action Alternative would require that a majority of parking be provided in below-grade lots. Existing buildings that are reused would be required to develop independent below-grade parking solutions and new buildings would need to incorporate parking within their lot in below-grade structures. Under the Preferred Alternative, on-street parking within internal FMC roadways would not be permitted. Current parking allowances on internal FMC roadways would be removed upon implementation of the Preferred Action Alternative.

3.6.1.2 Existing and Projected Demand

The existing conditions in and around the former WRAMC were characterized to provide a foundation for assessing the transportation implications of the Preferred Action Alternative. This was determined by examining the peak traffic hours. The “peak hour” represents the worst-case scenario, when the system traffic volumes are the highest. The use of a typical weekday morning and afternoon peak hours are used to ensure that conclusions regarding adverse impacts and their respective mitigation measures would apply to the vast majority of time roads are used.

Traffic counts were conducted at 13 intersections between the hours of 6:30 and 9:30 a.m. and between 4:00 and 7:00 p.m. on Tuesday and Wednesday, December 6–7, 2011 (traffic counts will be updated in the spring of 2014). Additional traffic volumes were collected on Tuesday and Wednesday, June 5–6, 2012. Each of these count dates represent typical weekdays when the District of Columbia public school systems were in session. These typical weekdays represent time periods that include normal operation for other major traffic generators in the study area (exhibit 3.3).

The No Action Alternative includes the traffic generated by other developments near the study area and inherent growth on the roads. Growth from these two sources was added to the existing traffic volumes to determine the traffic projections for the future No Action Alternative.

The DC-LRA development would generate approximately 1,916 and 2,197 trips during the morning and afternoon peak hours, respectively (exhibit 3.4). Other developments near the former WRAMC that would be completed by 2032 consist of:

- The Walmart on Georgia Avenue – 5929 Georgia Avenue
- Beacon Center (new mixed use development) – 6100 Georgia Avenue
- Takoma Central (new apartment building) – 235-255 Carroll Street
- Takoma Park (new apartment buildings) – 6924 Willow Street

Trips generated by the other developments were estimated using the methodology outlined in *Institute of Transportation Engineers' (ITE) Trip Generation, 8th Edition.* In addition to the other developments, other traffic increases due to inherent growth on the streets were accounted for with a 0.5 percent per year growth rate compounded annually. This rate was estimated based on a comparison between existing and past average annual weekday traffic volumes obtained from DDOT for 2006–2009. This growth rate was applied to streets and intersections, with the exception of turning movements entering and exiting the former WRAMC at the intersection of 16th Street and Main Drive.

The traffic volumes generated by other developments and the inherent growth were added to the existing (2012) traffic volumes to establish the future (2032) traffic volumes for the No Action Alternative (exhibit 3.5).

Trip generation for the chanceries was estimated based on existing traffic volumes collected adjacent to the ICC.

Due to the ICC's proximity to the Van Ness–UDC Metrorail Station (one quarter to one half of a mile, depending on the chancery), it is likely that a significant number of trips occur via transit. As transit ridership information is not available for the ICC, data was obtained from the WMATA Ridership Survey. It is anticipated that the mode split of the chanceries would operate

Exhibit 3.3 - *Existing Traffic Conditions*

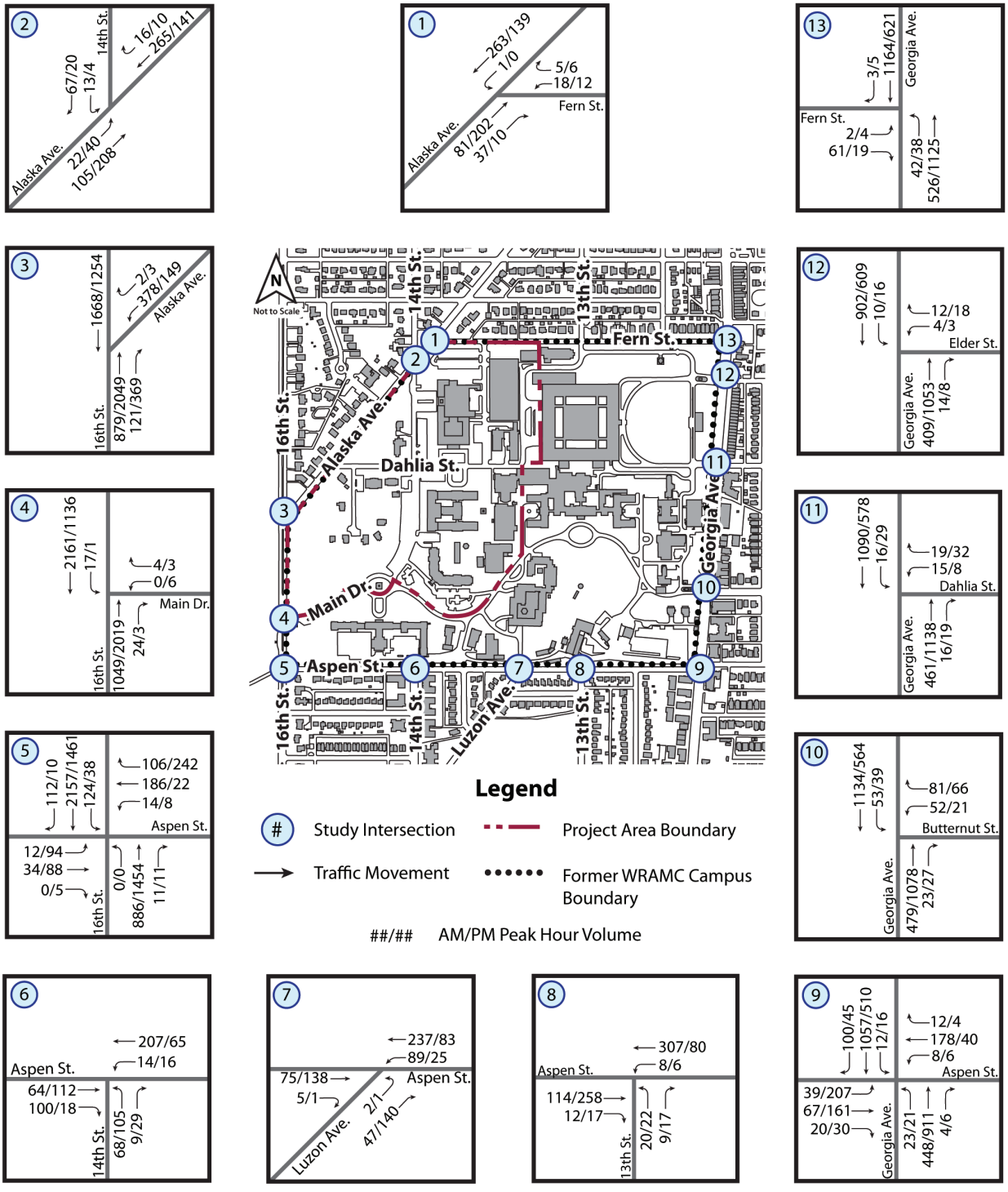


Exhibit 3.4 - *Other Developments Trip Generation Rate and Projection*

Land Use	*Trip Generation*					
	AM Peak Hours			*PM Peak Hours*		
	In	*Out*	*Total*	*In*	*Out*	*Total*
DC-LRA Reuse Plan	1,201	717	1,916	942	1,256	2,197
Georgia Avenue Walmart	75	58	133	133	138	272
Beacon Center	48	38	84	64	99	163
Takoma Central	16	41	57	60	46	106
Takoma Park	4	18	22	20	11	31
Total Vehicular Trips	1,344	872	2,216	1,219	1,550	2,769

similar to an office development. As a result, the commute mode share at office sites as listed in the WMATA study was used. However, no office sites reviewed in the WMATA Ridership Survey are near the Van Ness–UDC Metrorail station, so comparable data from two office sites near the Friendship Heights Metrorail Station was selected.

The two office sites selected from the WMATA Ridership Survey have an automobile mode share of 67 percent and 57 percent. To provide a conservative estimate, it was estimated that the ICC would have an automobile mode share of 57 percent, which was used to extrapolate the total number of trips generated by the ICC. Based on this mode share, the total number of trips generated by the ICC was calculated to be approximately 296 inbound and 53 outbound (349 total) during the morning peak hour and 256 inbound and 318 outbound (574 total) during the afternoon peak hour, without transit use.

The total trip generation estimates for the ICC were used to project the trip generation for the FMC. The total number of trips generated by the ICC was grown based on a ratio of the total square footage of the FMC (approximately 1.26 million SF) to the total square footage of the ICC (approximately 1.1 million SF). This calculation yields a total of approximately 340 inbound and 60 outbound (400 total) trips during the morning peak hour and 293 inbound and 364 outbound (657 total) trips during the afternoon peak hour for the FMC, without transit use (exhibits 3.6 and 3.7).

Existing traffic volumes and travel patterns were analyzed to determine the trip distribution for the trips added by the Preferred Action Alternative. The traffic volumes for the Preferred Action Alternative were calculated by adding the development-generated traffic volumes to the future (2032) for the No Action Alternative. Thus, the future condition for the Preferred Action Alternative includes traffic generated by existing volumes, the growth percentage, other development, and the proposed action (exhibit 3.8).

A software program (Synchro Version 7.0) was used to analyze the intersections in the study area. The results of the capacity analyses are expressed in delay (seconds per vehicle) for each approach. The capacity analyses were based on: 1) peak hour traffic volumes; 2) lane use and traffic controls; and 3) Highway Capacity Manual (HCM) methodologies (using Synchro 7

Exhibit 3.5 - *No Action Future Traffic Volumes (2032)*

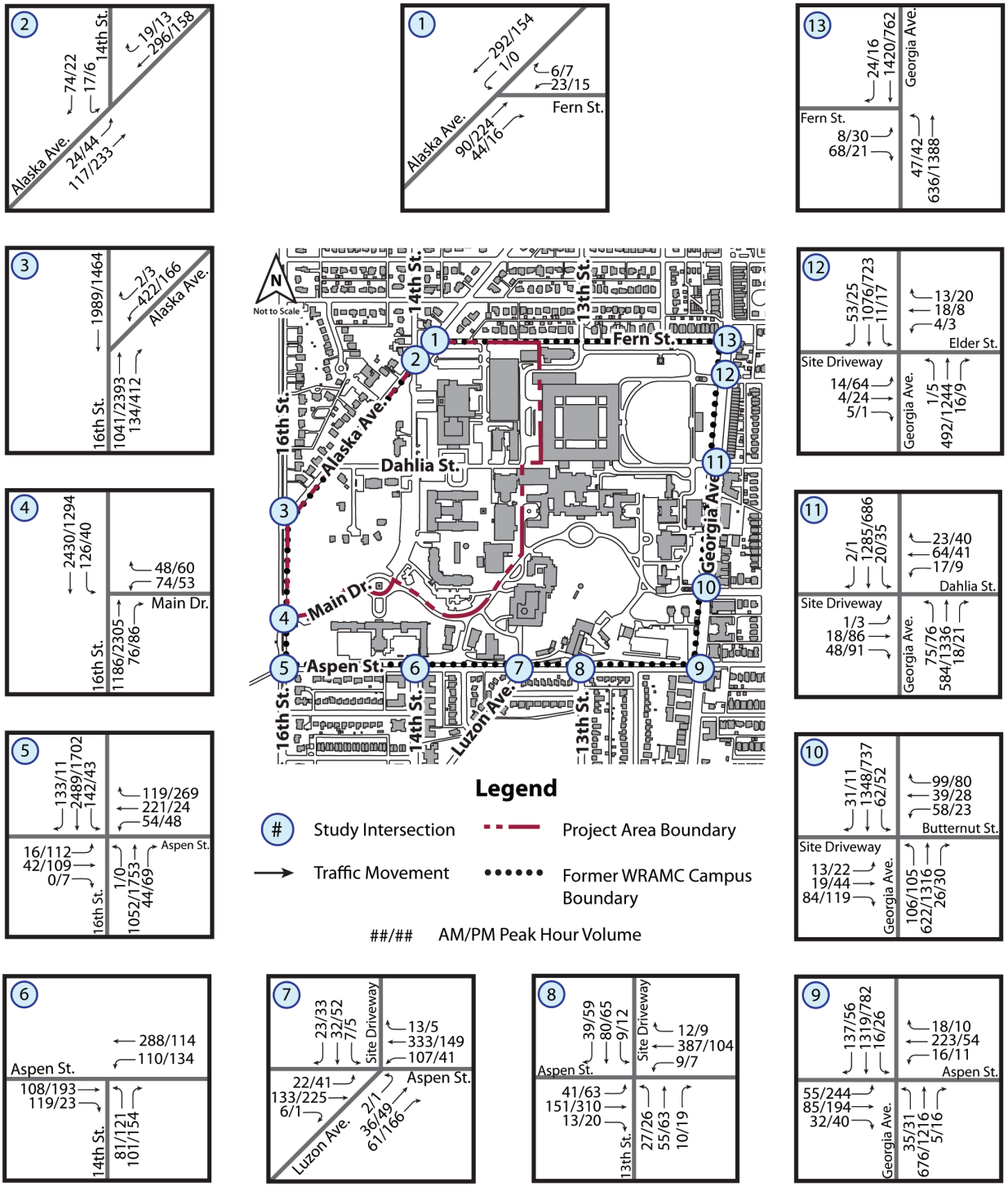


Exhibit 3.6 - *Preferred Action Alternative Trip Generation Rate and Projection*

Step	*Calculation*	*Trip Generation*					
		AM Peak Hours			*PM Peak Hours*		
		In	*Out*	*Total*	*In*	*Out*	*Total*
ICC peak hour vehicular trips	Summed on G/S count	169	30	199	146	181	327
Estimated ICC total peak hour trips, without transit usage	Increased based on auto mode-share of 57%	296	53	349	256	318	574
Projected FMC total peak hour trips	Calculated based on ratio of SF (1.26/10 M SF)	340	60	400	293	364	657
Total Vehicular Trips		**340**	**60**	**400**	**293**	**364**	**657**

software). The HCM does not give guidelines for calculating the average delay for a two-way stop-controlled intersection, as the approaches without stop signs would technically have no delay (exhibit 3.9).

The Preferred Action Alternative was considered to have an impact at an intersection if the capacity analyses showed a delay greater than 80 seconds at an intersection or along an approach with the proposed action where one does not exist in the future conditions for the No Action Alternative. This condition would exist at the intersection of 16th Street and Main Drive.

Exhibit 3.10 summarizes the results of the capacity analyses for those locations and scenarios with considerable delays (greater than 80 seconds).

Exhibit 3.7 - *Preferred Action Alternative Generated Traffic Volumes (2032)*

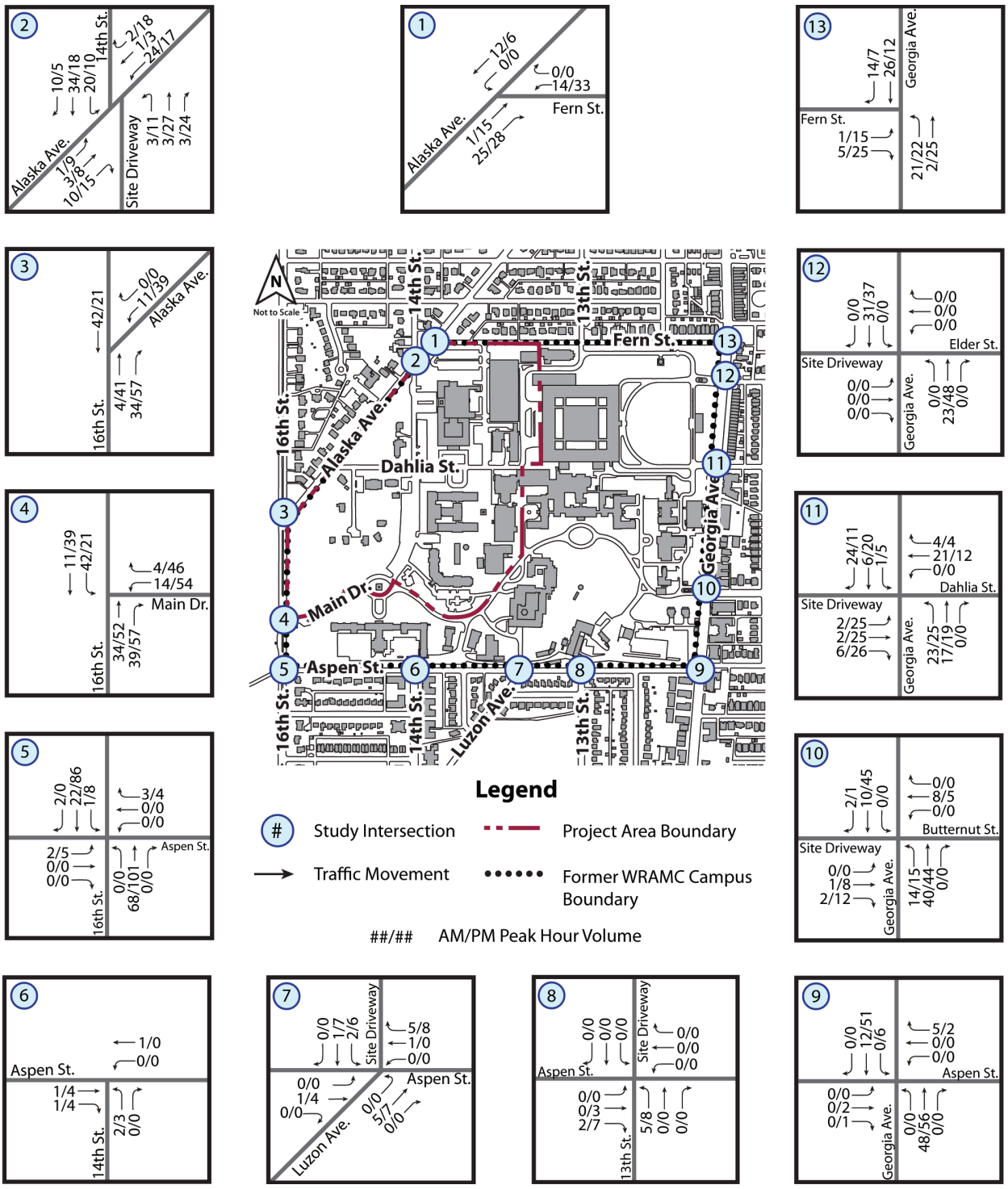


Exhibit 3.8 - *Preferred Action Alternative Future Traffic Volumes (2032)*

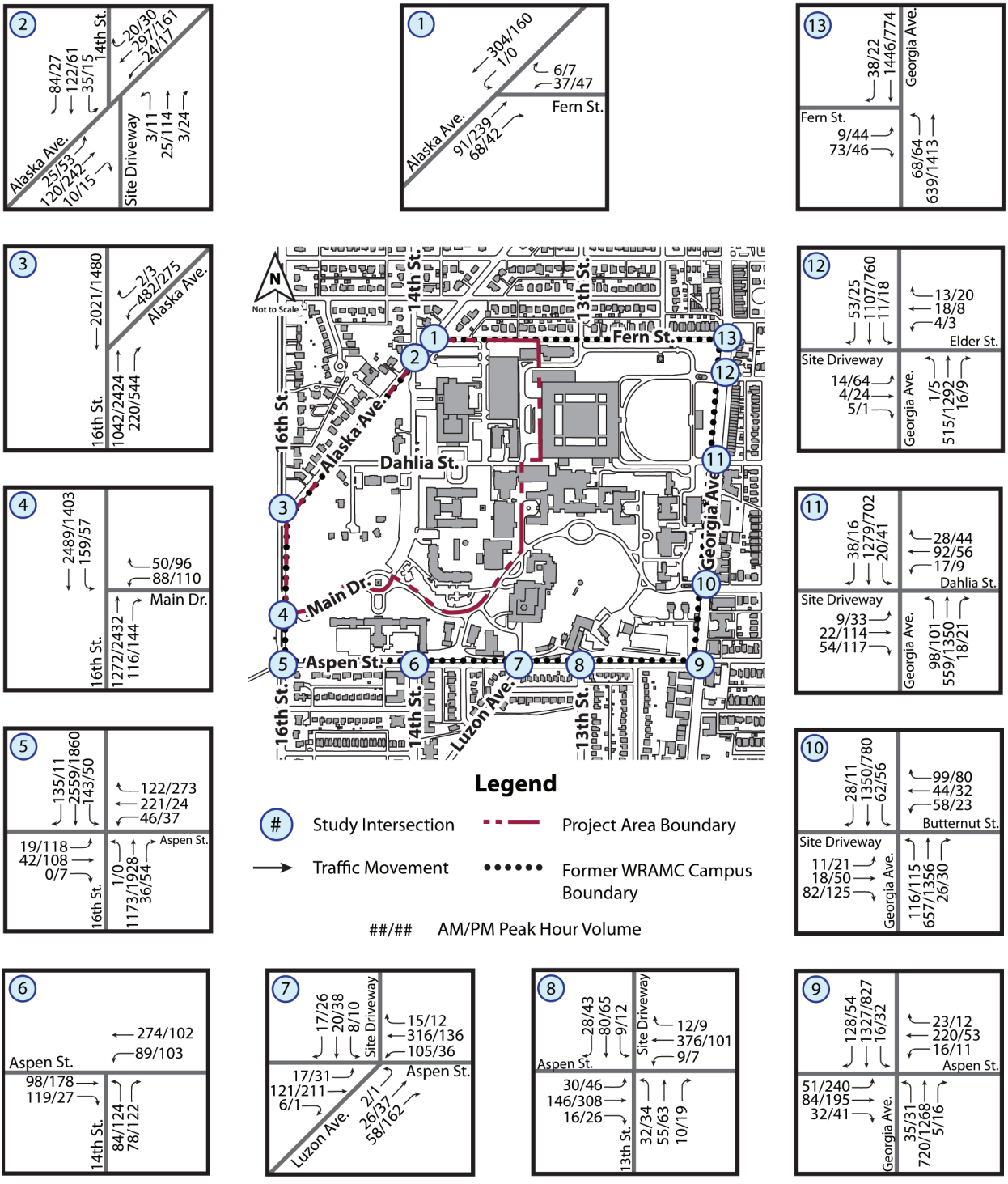


Exhibit 3.9 - *Peak Traffic Delays (in seconds)*

Intersection	*Approach*	*Existing Conditions (2012)*		*No Action Conditions (2032)*		*Preferred Alternative Conditions (2032)*	
		AM Peak Hour Delay	*PM Peak Hour Delay*	*AM Peak Hour Delay*	*PM Peak Hour Delay*	*AM Peak Hour Delay*	*PM Peak Hour Delay*
1. Fern St. & Alaska Ave.	Westbound	11.2	10.7	11.7	11.1	12.5	12.5
	Southbound left	0.0	0.0	0.0	0.0	0.0	0.0
2. Alaska Ave. & 14th St.	Eastbound left	1.6	1.5	1.6	1.5	1.5	1.7
	Westbound left	--	--	--	--	0.4	0.6
	Northbound	--	--	--	--	16.7	20.2
	Southbound	11.7	9.9	12.5	10.3	28.6	18.2
3. 16th St. & Alaska Ave.	Overall	18.1	101.9	45.9	154.5	51.4	179.9
	Northbound	2.1	144.9	2.2	228.1	2.9	269.2
	Southbound	21.3	25.5	70.5	24.4	78.4	24.6
	Southwest-bound	44.5	34.7	49.1	35.2	61.8	38.6
4. 16th St. & Main Dr.	Overall	2.0	3.7	21.4	33.7	33.3	73.9
	Westbound	48.7	50.6	43.1	46.0	45.0	65.7
	Northbound	1.3	4.1	2.2	49.2	2.9	113.4
	Southbound	2.2	2.2	29.4	3.8	49.0	6.8
5. 16th St. & Aspen St./Sherrill Dr.	Overall	56.5	32.6	102.1	47.0	110.8	51.7
	Eastbound	37.0	87.1	39.9	144.2	41.1	156.8
	Westbound	49.8	144.4	50.5	208.3	51.1	230.2
	Northbound	23.5	20.2	26.9	24.5	27.4	31.1
	Southbound	70.0	11.3	140.8	16.1	156.3	19.0
6. 14th St. & Aspen St.	Overall	8.8	8.6	13.0	12.7	11.7	11.3
	Eastbound	8.3	8.5	10.8	11.5	10.2	10.7
	Westbound	9.3	8.3	15.3	12.9	13.3	11.2
	Northbound	8.8	8.9	11.4	13.3	10.7	11.8

Continued on following page

Exhibit 3.9 - *Peak Traffic Delays (in seconds) (Continued)*

Intersection	*Approach*	*Existing Conditions (2012)*		*No Action Conditions (2032)*		*Preferred Alternative Conditions (2032)*	
		AM Peak Hour Delay	*PM Peak Hour Delay*	*AM Peak Hour Delay*	*PM Peak Hour Delay*	*AM Peak Hour Delay*	*PM Peak Hour Delay*
7. Aspen St. & Luzon St./Site Driveway	Overall	9.6	8.4	13.4	11.6	12.3	10.7
	Eastbound	8.0	8.7	10.0	12.9	9.4	11.7
	Westbound	10.3	8.4	16.3	11.1	14.5	10.4
	Northbound	7.8	8.0	9.7	11.0	9.1	10.3
	Southbound	--	--	9.4	9.7	8.9	9.3
8. 13th St. & Aspen St.	Eastbound Left	--	--	2.0	1.6	1.5	1.2
	Westbound left	0.2	0.6	0.2	0.5	0.2	0.5
	Northbound	11.0	11.0	22.1	20.5	20.8	20.0
	Southbound	--	--	18.9	15.6	17.9	15.2
9. Georgia Ave & Aspen St.	Overall	21.6	27.0	18.3	33.4	18.7	38.1
	Eastbound	149.9	46.9	111.9	56.9	119.3	57.0
	Westbound	58.4	24.2	46.7	21.0	50.1	21.3
	Northbound	5.3	20.6	10.6	39.2	10.3	44.7
	Southbound	3.8	24.2	2.7	15.5	2.5	22.6
10. Georgia Ave & Butternut St./Site Driveway	Overall	15.5	19.8	15.6	11.5	15.1	12.4
	Eastbound	--	--	41.2	32.3	41.1	32.4
	Westbound	31.3	31.4	45.6	50.8	46.1	49.1
	Northbound	8.4	19.5	6.0	4.4	6.4	4.5
	Southbound	16.7	18.3	14.4	12.1	13.5	14.8
11. Georgia Ave & Dahlia St. /Site Driveway	Overall	3.1	1.7	11.0	9.6	13.9	12.5
	Eastbound	--	--	48.4	44.0	46.5	50.5
	Westbound	55.8	35.1	65.3	43.6	69.6	40.0
	Northbound	1.1	0.5	2.9	1.6	3.8	2.0
	Southbound	1.8	1.4	8.3	12.2	10.7	15.2

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Exhibit 3.9 - *Peak Traffic Delays (in seconds) (Continued)*

Intersection	*Approach*	*Existing Conditions (2012)*		*No Action Conditions (2032)*		*Preferred Alternative Conditions (2032)*	
		AM Peak Hour Delay	*PM Peak Hour Delay*	*AM Peak Hour Delay*	*PM Peak Hour Delay*	*AM Peak Hour Delay*	*PM Peak Hour Delay*
12. Georgia Ave & Elder St. /Site Driveway	Overall	2.6	1.8	4.2	6.3	4.3	6.2
	Eastbound	--	--	55.6	65.2	55.6	65.2
	Westbound	56.5	46.1	56.2	41.0	56.2	41.0
	Northbound	1.2	0.8	0.8	3.8	0.9	3.8
	Southbound	2.2	1.7	3.3	2.1	3.4	2.3
13. Georgia Ave & Fern St.	Overall	--	--	4.8	6.7	5.3	11.0
	Eastbound	13.5	16.3	44.7	46.4	44.7	44.8
	Northbound	3.1	1.5	6.1	3.0	7.1	13.8
	Souhtbound	--	--	1.7	1.2	1.8	1.4

Exhibit 3.10 - *Road Capacity*

Intersection	*Locations & Scenarios with Considerable Delays (>80)*	*Percent Future Vehicular Traffic Attributable to Development (in TF scenario)*		*Discussion*
		AM Peak	PM Peak	
Adjacent to the former WRAMC				
3. 16th St. & Alaska Ave.	Overall intersection PM Peak: EX, BG, TF NB 16th Street PM Peak: EX, BG, TF	2.4%	3.3%	The NB and overall intersection delays at this intersection are due to the existing timing and lane configurations. The addition of the background growth, trips generated by the background developments, and the site-generated trips exacerbates the existing failing operation on the NB approach. Constructing a 200-foot NB right-turn lane would alleviate the delay and allow the intersection and approach to operate under acceptable conditions during all scenarios. The intersection does not operate under acceptable conditions in the morning peak hour due to the addition of the trips generated by the Preferred Action Alternative. Retiming the intersection improves operation and allows all approaches to operate under acceptable conditions. ***The District of Columbia and DOS should coordinate the retiming of the signal to ensure the most efficient operation in the future.***
4. 16th St. & Main Dr.	NB 16th St. PM Peak TF	3.4%	6.3%	The northbound delays at this intersection are due to the addition of site traffic as well as existing timing and lane configurations. Constructing a 50-foot northbound right turn lane and retiming the signal during the afternoon peak period would alleviate the delay and allow the intersection and approach to operate under acceptable conditions during the total future afternoon scenario. ***The District of Columbia and DOS should coordinate the installation of a 50-foot northbound right-turn lane as well as an updated signal timing to ensure the most efficient operation in the future following the construction of the FMC Master Plan.***

Continued on following page

Exhibit 3.10 - *Road Capacity (Continued)*

Intersection	*Locations & Scenarios with Considerable Delays (>80)*	*Percent Future Vehicular Traffic Attributable to Development (in TF scenario)*		*Discussion*
		AM Peak	PM Peak	
5. 16th St. & Aspen St./Sherrill Dr.	EB Sherrill Drive PM Peak: EX, BG, TF WB Aspen Street PM Peak: EX, BG, TF Overall intersection AM Peak: BG, TF SB 16th Street AM Peak: FB, TF	2.2%	4.6%	The EB and WB delays at this intersection during the afternoon peak period are due to the existing timing and lane configurations. The addition of the background growth, trips generated by the background developments, and the site-generated trips exacerbates the existing poor conditions on the EB and WB approaches. Retiming the intersection alleviates the poor conditions during the afternoon peak period. Additionally, an all-red phase should be added during the morning and afternoon peak periods in the existing and background conditions. The addition of traffic generated by the background developments during the morning peak period causes the intersection to operate under poor conditions. These delays are mitigated by constructing a 70-foot SB right-turn lane extended from the existing bus lay-by, as well as retiming the intersection. Even with these improvements, the intersection does not operate under acceptable conditions in the afternoon peak hour due to the addition of the trips generated by the Preferred Action Alternative. Retiming the intersection improves the operation and allows all approaches to operate under acceptable conditions. ***The District of Columbia and DOS should coordinate the retiming of the signal to ensure the most efficient operation in the future.***
9. Georgia Ave. & Aspen St.	EB Aspen Street AM Peak: EX, BG, TF	2.4%	4.2%	The EB delays on Aspen Street at this intersection are due to the existing timing and lane configurations. The addition of the background growth, trips generated by the background developments, and the site-generated trips exacerbates the existing failing operation on the EB approach. This delay can be mitigated by removing approximately 200-feet of on-street parking on Aspen Street to allow for separate left-turn and through/right-turn lanes. ***This intersection would be studied as WRAMC is redeveloped to determine if additional improvements are necessary.***

Continued on following page

Exhibit 3.10 - *Road Capacity (Continued)*

Intersection	*Locations & Scenarios with Considerable Delays (>80)*	*Percent Future Vehicular Traffic Attributable to Development (in TF scenario)*		*Discussion*
		AM Peak	PM Peak	
Near the fomer WRAMC				
6. 16th St. & Van Buren St.	Overall Intersection AM: EX, BG,TF SB 16th St. AM Peak: EX, BG, TF Overall Intersection PM: BG, TF NB 16th St. PM Peak: TF SB 16th St. PM Peak: EX, BG, TF	2.3%	4.6%	The delays at this intersection are due to the existing split-phase timing at these two intersections, which are controlled by one controller. The addition of the background growth, trips generated by the background developments, and the site-generated trips exacerbates the existing failing operation. Removing the split phase and retiming the signal while maintaining existing pedestrian minimum green times will allow the intersection and approach to operate under acceptable conditions during all scenarios, with the exception of the southbound approach of 16th St. during the afternoon peak in the total future scenario. ***The District of Columbia and DOS should coordinate the update of the signal timing and future lane configurations to ensure the most efficient operation in the future following the construction of the FMC Mast Plan.***
7. 16th St. & Van Buren St.	Overall Intersection AM: BG, TF SB 16th St. AM Peak: BG, TF Overall Intersection PM: EX, BG, TF NB 16th St. PM Peak: EX, GB, TF	2.4%	4.6%	
19. Piney Branch Rd. & Dahlia St.	NB Piney Branch Rd. PM Peak: TF	2.4%	4.2%	The northbound delays along Piney Branch Rd. are due to the addition of the site-generated traffic at the intersection. Due to the proposed addition of all-way stop control included in the *Transportation Impact Study* for the DC-LRA Reuse Plan, the northbound approach operates under unacceptable conditions during the afternoon peak hour in the total future conditions. However, no improvements are recommended in conjunction with the FMC Master Plan. Additional turn lanes do not improve the operation of the intersection, however, a traffic signal could. A signal warrant analysis should be performed at full build-out of the site to determine if a new signal may be warranted. ***It is recommended that this intersection be closely studied after the FMC Master Plan has been implemented in order to determine if additional mitigation measures are necessary.***

Continued on following page

Exhibit 3.10 - *Road Capacity (Continued)*

Intersection	*Locations & Scenarios with Considerable Delays (>80)*	*Percent Future Vehicular Traffic Attributable to Development (in TF scenario)*		*Discussion*
		AM Peak	PM Peak	
24. 16th St. & Kalmia Rd.	EB Kalmia Rd. PM Peak: TF WB Kalmia Rd. PM Peak: TF	3.0%	4.1%	The delays at this intersection are due to the addition of the site-generated traffic at the intersection. However, constructing a 50-foot westbound right turn lane allows it to operate under acceptable conditions. ***The District of Columbia and DOS should coordinate the update of the signal timing to ensure the most efficient operation in the future following construction of the FMC Master Plan. Additionally, this intersection should be closely studied after the FMC Master plan has been implemented in order to determine if additional mitigation measures are necessary.***

Notes:

EX= 2012 Existing Conditions
BG= 2032 Background (without FMC Master Plan)
TF= 2032 Total Future (with FMC Master Plan)
EB=Eastbound
WB=Westbound
SB=Southbound
NB=Northbound

3.6.1.3 Heavy Vehicles

Heavy vehicle accessibility to the former WRAMC is intended to occur from Georgia Avenue and 16th Street. Given these access points, each of the driveways along Georgia Avenue and 16th Street would be required to be designed to meet DDOT acceptable standards for heavy vehicle accessibility including providing adequate turning radii, limiting visual impediments, and ensuring traffic does not oppose vehicles entering and exiting the former WRAMC. The DDOT guidelines for restricting backing maneuvers to or from publicly maintained roads, providing loading services within alleys where available, and sharing loading access with vehicular driveways would be followed.

The No Action Alternative would not impact heavy vehicle operations.

The Preferred Action Alternative would increase travel by heavy vehicles. Service for trash, recycling, and deliveries would occur regularly. Overall, many of the heavy vehicle operations would occur with a standard single unit vehicle, but the Preferred Action Alternative would need to account for access by larger articulated vehicles.

In support of the Preferred Action Alternative, DOS would perform the following to improve heavy vehicle operations:

- ◊ Heavy vehicle traffic should be limited on local streets by providing a Transportation Management Plan for the development which would instruct deliveries and loading operations to the approved heavy vehicle corridors through this portion of the District of Columbia.

- ◊ Ensure construction of internal roadways are built to conformance with DDOT standards and would support the necessary heavy vehicles anticipated to travel the roadway system.

- ◊ Design pertinent intersections to support the turning maneuvers for the largest design vehicle expected to visit the FMC.

- ◊ Loading operations for buildings would be designed to occur from dedicated receiving and loading areas that are screened from the primary streets. These operations would require heavy vehicles to pull-in and pull-out of any loading area. Backing along sidewalks or crosswalks would not be permitted.

3.6.1.4 Car-Sharing

Car-sharing is provided in the District of Columbia and the study area by Zipcar. Available vehicles are primarily adjacent to the Takoma Metrorail Station. Zipcar is a private company that allows registered users to reserve cars for a minimum of 30 minutes up to several days (exhibit 3.11).

The No Action and Preferred Action Alternatives would not impact car-sharing.

Exhibit 3.11 - *Car-sharing*

Land Use	*Number of Vehicles*	*Distance (miles)*
Trip Generation Rate	8.08	6.35
Chanceries (based on ICC)	186	161
Total Vehicular Trips	186	161

3.6.2 Crash Analysis

A safety analysis was performed using DDOT accident data from 2008 to 2010 to determine if there was a high accident rate at intersections in the study area. This data included all signalized intersections adjacent to the former WRAMC, except for intersections that previously operated as WRAMC gates. For intersections, the accident rate is measured in accidents per million-entering vehicles (MEV) (exhibit 3.12).

According to the ITE's Transportation Impact Analysis, an accident rate of 1.0 or higher is an indication that further study is required. A crash rate over 1.0 does not necessarily mean there is a substantial problem at an intersection, but rather it is a threshold used to identify which intersections may have higher crash rates due to operational, geometric, or other issues. The four intersections with crash rates over 1.0 are:

- ◊ Georgia Avenue & Van Buren Street – The majority of crashes at this intersection were sideswiped vehicles and rear end crashes. Sideswipe crashes can often occur when a vehicle going straight through an intersection makes a last-second lane change to get around a vehicle waiting for a gap to make a left turn from a shared through/left lane; as is the case in this location since it does not have separate turning lanes. Elevated rear-end collision rates are typical at intersections controlled by a traffic signal. A significant number of crashes involving pedestrians were observed.

Exhibit 3.12 - *Intersection Crash Rates*

Intersection	*Total Crashes*	*Pedestrian Crashes*	*Bike Crashes*	*Rate per MEV*
16th Street & Alaska Avenue	23	0	1	0.61
16th Street & Aspen Street	33	3	4	0.85
16th Street & Van Buren Street	6	0	0	0.18
Georgia Avenue & Van Buren Street	25	2	2	1.50
Georgia Avenue & Aspen Street	25	0	0	1.17
Georgia Avenue & Butternut	19	2	1	0.96
Georgia Avenue & Dahlia Street	27	7	0	1.44
Georgia Avenue & Geranium Street	38	2	0	1.92
13th Street, Alaska Avenue, & Hemlock Street	0	0	0	0.00
16th Street & Holly Street	6	0	0	0.21

- ◊ Georgia Avenue & Aspen Street – The majority of crashes at this intersection were sideswiped vehicles and rear end crashes.

- ◊ Georgia Avenue & Dahlia Street – The majority of crashes at this intersection were rear end crashes, with 12 of the 27 crashes classified in this way. A significant number of crashes involving pedestrians were observed as well.

- ◊ Georgia Avenue & Geranium Street – The crash report data shows a high number of rear end and sideswipe crashes. Potential reasons for these crashes are the high volume of vehicular activity at this intersection, the high amount of turning traffic, and the lack of turn lanes on Georgia Avenue.

The No Action and Preferred Action Alternatives would not change commuting patterns or operations or geometry of these intersections which would result in no changes to the crash rates in the study area. However, the changes introduced by the Preferred Action Alternative would have an impact on pedestrian crossings of Georgia Avenue and 16th Street. As the crash data shows pedestrian crashes at a number of intersections along Georgia Avenue and 16th Street, DOS would coordinate with the DDOT to consider adding leading pedestrian intervals to the signalized intersections.

3.6.3 Transit Service

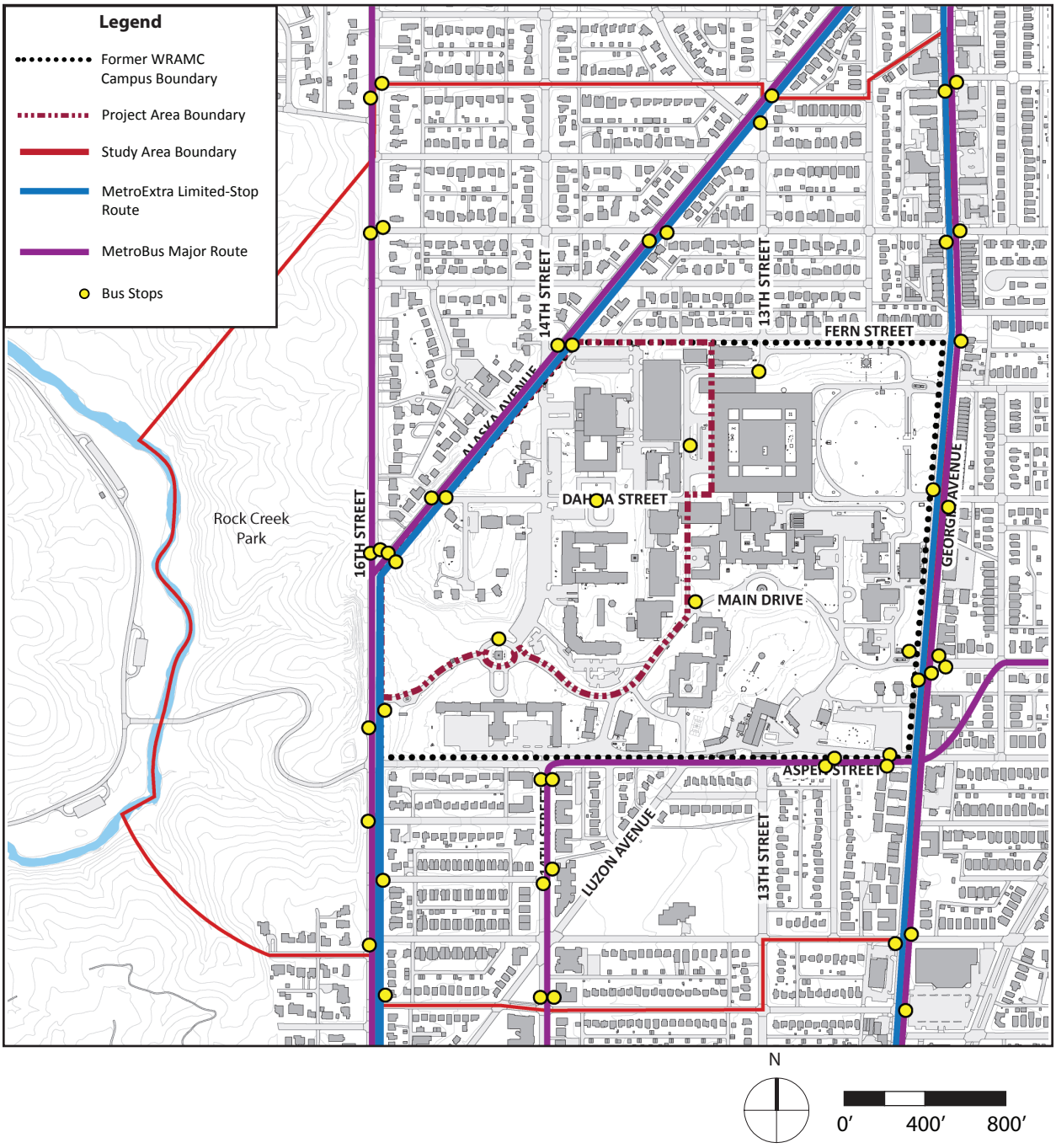
The former WRAMC is served by heavy rail and local bus service. These transit services provide local, city-wide, and regional transit connections and link the former WRAMC with major cultural, residential, employment, and commercial destinations throughout the region (exhibit 3.13).

3.6.3.1 Metrorail Service

The Takoma Station, a multimodal transportation hub on the Metrorail Red Line, is the closest Metrorail station. Located approximately one mile from the former WRAMC, the station portal is at Cedar Street/Carroll Street immediately west of Eastern Avenue. Approximately 58 short-term metered parking spaces, 38 bike racks, 60 bike lockers, 9 bus bays, and 4 car-sharing spaces available at the station were counted.

The Metrorail Red Line connects the former WRAMC to Silver Spring and Glenmont, Maryland, to the north and to downtown Washington, DC, Union Station, Chinatown/Gallery Place, and Metro Center to the south. Trains run frequently during the morning and afternoon peak hours, approximately every three minutes during weekday peak hours, 5–6 minutes during weekday non-peak hour, every 12–15 minutes on weekday evenings after 7:00 p.m., and 5–15 minutes on the weekends.

Exhibit 3.13 - *Existing Transit Routes, Station and Stops*



3.6.3.2 Metrobus Service

The former WRAMC is serviced by six Metrobus lines with nine distinct routes. Bus stops are along streets adjacent to the former WRAMC, including 16th Street, Alaska Avenue, Aspen Street, and Georgia Avenue, and other streets within two or three blocks.

The 14th Street Line (Routes 52, 53, and 54) provides service along 14th Street to the south. They operate between Takoma Station, Butternut Street, Aspen Street, 14th Street, and L'Enfant Plaza. The routes make stops adjacent to the former WRAMC on Georgia Avenue, Aspen Street, and 14th Street. Buses run every 10-20 minutes and approximately every 30 minutes in the late evening and early morning.

The Georgia Avenue Metro Extra Line (Route 79) provides limited-stop bus service along Georgia Avenue in the study area and runs from the Silver Spring Metrorail station (Red Line) to the Archives-Navy Memorial/Penn Quarter Metrorail station (Yellow and Green Lines) and serves four Metrorail stations. Buses run every 10–12 minutes on weekdays from 6:00 am to 7:00 pm. Although this bus has limited-stop service, it stops adjacent to the former WRAMC at Dahlia Street.

The Georgia Avenue-7th Street Line (Line 70) runs the same route of the Metro Extra Route 79, though it continues to the L'Enfant Plaza Metrorail station (Yellow, Green, Blue, and Orange Lines), Waterfront Metrorail station (Green Line), and Fort McNair. It has frequent stops along Georgia Avenue in the study area. Buses operate every 10–15 minutes and approximately every 30 minutes in the late evening and early morning.

The 16th Street Express (Route S9) has limited stops along 16th Street in the study area, connecting the Silver Spring Metrorail station, Columbia Heights Metrorail station (Yellow and Green Lines), and McPherson Square Metrorail station (Blue and Orange Lines). The closest Metrobus stop to the south is at Somerset Place, approximately 1/3 mile from the southwest corner of the former WRAMC. The closest stop to the north is at Kalmia Road, which is less than a half mile from the northeast corner of the former WRAMC. Service is provided every 10 minutes from 6:30 am to 10:00 am and 3:00 pm to 7:00 pm on weekdays.

The 16th Street Lines (Routes S2 and S4) connect the Silver Spring Metrorail station to the north and Federal Triangle Metrorail station (Blue and Orange Lines) to the south. Both lines travel along 16th Street; however, the S2 travels along Alaska Avenue south of the former WRAMC and Eastern Avenue north of the former WRAMC. Both lines have headways of approximately every 15 to 20 minutes on weekdays and weekends.

The Deal Junior High School Line (Route D31) only operates Monday through Friday when public schools are open. The bus runs once in the morning peak (7:45 am) and once in the afternoon (3:55 pm). This line runs along 16th Street in the study area and connects to Deal Junior High School at Nebraska Avenue and Fort Drive.

3.6.3.3 Future Transit Service

DDOT has developed a plan to identify transit challenges and opportunities and to recommend investments. This is outlined in the *DC's Transit Future System Plan* published by DDOT in April 2010. This plan includes the reestablishment of streetcar service throughout the District of Columbia and in the vicinity of the Preferred Action Alternative.

The streetcar system plan includes one route that travels along Georgia Avenue and Butternut Street. The future planned route named the "Takoma Metrorail Station to Buzzard Point Line", would connect the former WRAMC to areas in the District of Columbia including Buzzard Point, Southwest Waterfront, Chinatown, Metro Center, U Street, and the Georgia Avenue corridor. The Takoma Metrorail Station to Buzzard Point Line is projected to be completed in 2020. Given that redevelopment is expected to attract many transit riders, an orphan line which initially would not connect to the remaining streetcar network is being considered, connecting the former WRAMC to the Takoma, Silver Spring or Georgia Avenue Metrorail stations. This connection would likely require a dedicated streetcar maintenance facility within the former WRAMC.

The Metro Extra limited-stop bus service element of the plan includes one new route (Route 59) that travels near the former WRAMC along 14th Street. The new limited-stop bus service would consist of high-frequency buses using specially marked vehicles, operated by WMATA, which would supplement the four Metro Extra routes that operate along Georgia Avenue, 16th Street, Wisconsin Avenue, and Pennsylvania Avenue.

The future planned corridor near the former WRAMC is along 14th Street, which would connect the Takoma Metrorail Station, Aspen Street, WRAMC, Columbia Heights, the U Street corridor and Downtown at Pennsylvania Avenue. Metro Extra runs along Georgia Avenue as Route 79.

The District of Columbia Circulator plans to provide service as part of its long term (Fiscal Year (FY) 2019-2020) planning efforts. The added service would connect Tenleytown to Silver Spring by way of Rock Creek Park and Georgia Avenue. While a formal route has yet to be determined, this Circulator is planned to provide enhanced bus service to the upper Northwest portions of the District of Columbia.

The No Action Alternative would not impact transit services.

The Preferred Action Alternative would increase use in both Metrorail and Metrobus. In support of the Preferred Action Alternative, DOS would perform the following to increase transit usage:

- ◊ Coordinate with DDOT and the LRA Reuse Plan team on future streetcar and other long-term transit improvements;

- ◊ During the development, review transit facilities along 16th Street and Alaska Avenue for potential improvements and consolidation;

- ◊ As part of the planning process between DDOT, WMATA, and the LRA development team, provide assistance in the service modification for transit lines and streetcar servicing the streets interior to WRAMC; and

- ◊ In locations where available and appropriate, coordinate with WMATA to provide bus shelters, bus stops and layover areas along the boundary of FMC and within and along the boundary of former WRAMC.

3.6.4 Pedestrian Facilities

Most pedestrians accessing the former WRAMC arrive from adjacent residential neighborhoods to the north and south, bus stops along 16th Street and Georgia Avenue, or from the Takoma Metrorail Station. Nearly all streets in the study area have sidewalks, planted buffers between sidewalks and the curb, and on-street parking that provide an additional buffer between pedestrians and vehicular traffic. Existing deficiencies are along Aspen Street which provides sidewalks only in sections along the southern portion of the road and Luzon Avenue which does not provide sidewalks on the eastern side of the road.

A range of pedestrian facilities exist in the study area adjacent to the former WRAMC. Crosswalks, curb ramps, and pedestrian signal heads with countdown displays are provided at some signalized intersections. Many unsignalized intersections have crosswalks and curb ramps. Along 16th Street between Aspen Street and Alaska Avenue, most intersections have crosswalks and curb ramps for north-south movements and a crosswalk on either the north or south side of the intersection for pedestrians crossing 16th Street. Sidewalks, crosswalks, and curb ramps are provided along Georgia Avenue in the study area. The sidewalk along the western side of Georgia Avenue is in poor condition; walking conditions along Fern Street and Alaska Avenue are similar.

At intersections along Aspen Street, crosswalks and curb ramps are provided for east-west movements on the south side of the street. Most of the intersections along Aspen Street do not accommodate north-south movements because there are no sidewalks along the north side of Aspen Street despite the presence of bus stops on the northern side of the street.

The Takoma Metrorail station is approximately one mile from the former WRAMC. The bus stops along Georgia Avenue and 16th Street serve bus routes that provide local and express service between the study area and Silver Spring to the north and downtown Washington, DC, to the south. Pedestrians access these bus stops along the local pedestrian network that borders the former WRAMC and within the residential neighborhoods adjacent to the former WRAMC. There is some pedestrian activity between the residential neighborhoods and the former WRAMC and the Takoma Metrorail station. However, pedestrians must navigate around the former WRAMC if they are traveling between neighborhoods to the west and the Takoma station.

Georgia Avenue is the primary commercial corridor within the study area. Commercial activities are concentrated north of Fern Street and south of Van Buren Street. There is pedestrian activity through the study area due to these commercial uses, primarily during the midday lunch period

and evening dinner period. Additionally, as part of future improvements along Aspen Street provided in conjunction with the DC-LRA Reuse Plan, improved pedestrian facilities along the north side of the street would be completed by connecting Georgia Avenue to 16th Street.

The No Action Alternative would not impact pedestrian facilities.

The Preferred Action Alternative would add to pedestrian traffic in the study area. In support of the Preferred Action Alternative, DOS would perform the following to improve pedestrian facilities:

- ◊ Improve pedestrian conditions along east-west and north-south pedestrian routes within the FMC. Recommended improvements include expanding sidewalk widths, removing obstructions, installing and upgrading crosswalks at intersections, and installing traffic calming measures, such as speed tables, decorative pavers, bulb outs at intersections, and the like. These would include improving pedestrian accessibility at the reopened gates and in the open spaces areas along 16th Street, Alaska Avenue, Fern Street, Georgia Avenue, and Aspen Street.

- ◊ Add east-west and north-south pedestrian connections through the FMC to provide better access and routing between the FMC and the surrounding neighborhood. New routing options and crossing locations would help disperse pedestrian traffic, which would mitigate the impact of increased pedestrian volumes to any one intersection or sidewalk segment. It would reduce the need to make significant changes to intersections that would attract additional pedestrian volumes warranting new traffic control devices or changes to intersection geometry.

3.6.5 Bicycle Facilities

The former WRAMC is served by multi-use trails, signed bicycle routes, and local streets that accommodate cycling. The bicycle network generally provides good conditions for local trips and there are several routes for trips between the study area and Silver Spring, Takoma Park, and other destinations in Northwest Washington, DC.

There are multi-use trails within cycling distance of the site, including the Metropolitan Branch Trail, which links Silver Spring and Union Station, and the Rock Creek Parkway Trail, which connects Maryland with the Georgetown waterfront and the National Mall. These facilities foster good cycling conditions for bicycle commuting and recreational riding. Some major destinations within a three mile ride include Columbia Heights and Chevy Chase Circle. It is approximately 1.75 miles to Silver Spring and 2.5 miles to the Georgia Avenue Metrorail stations.

Bicycle activity is highest along the multi-use trails and streets with designated bike lanes. Multi-use trails and bike lanes encourage cycling by providing separate facilities that give cyclists an elevated sense of safety due to increased visibility and designated pathways. The highest observed bicycle volumes in the study area were along 16th Street and Georgia Avenue.

Cyclists typically use street signs, parking meters, or similar objects to secure their bicycles. Most of the bicycle traffic on 16th Street was along the sidewalk. While the sidewalk in this area is not designated for cycling, it is wide in most locations and DDOT permits bicycles on sidewalks outside of the Central Business District. Traffic conditions along 16th Street, with its hard curbs and high travel speeds, make riding undesirable.

The Capital Bikeshare was launched in September 2010 to replace the DC SmartBike program. This program has placed over 175 bicycle-share stations across the District of Columbia, and Arlington and Alexandria, VA, with over 1,670 bicycles provided. At the time data was collected, no Capital Bikeshare stations existed in the study area. However, several potential stations have been identified for placement by DDOT and the system is continually expanding.

The No Action Alternative would not impact bicycle facilities.

The Preferred Action Alternative would impact bicycle facilities by increasing demand for bicycle parking and storage, demand for Capital Bikeshare docks and facilities in or near the former WRAMC and increased safety and visibility for cyclists. In support of the Preferred Action Alternative, DOS would perform the following to improve bicycle facilities:

- ◊ Ensure roadways internal to the FMC accommodate bicycle travel;
- ◊ All shared-use trails shall be designed to a minimum of 10 feet wide to accommodate bicycle and pedestrian activities;
- ◊ Recommend bicycle facilities be extended by the District of Columbia at the northern edge of the former WRAMC campus;
- ◊ Provide crosswalks and all-way stops at FMC entrances to ensure bicycle access; and
- ◊ Encourage through each Chancery Transportation Management Plan that each foreign mission provide the bicycle commuter benefit to employees, and provide bike racks.

3.7 AIR QUALITY

The No Action and Preferred Alternatives would not negatively impact the air quality of the study area.

Federal air quality policies are regulated through the federal Clean Air Act (CAA). Pursuant to this act, the U.S. Environmental Protection Agency (EPA) has established National Ambient Air Quality Standards (NAAQS) for the following air pollutants (termed "criteria" pollutants): carbon monoxide (CO), ozone (O_3), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), respirable particulate matter defined as particulate matter less than 10 micrometers in aerodynamic diameter (PM_{10}), fine particulate matter defined as particulate matter less than 2.5 micrometers in diameter ($PM_{2.5}$), and lead (exhibit 3.14). There are two types of NAAQS for criteria air pollutants:

- ◊ Primary standards are designed to protect public health, including sensitive populations such as asthmatics, children, and the elderly.

- ◊ Secondary standards are designed to protect public welfare and the environment by preventing visibility impairment or damage to crops, vegetation, and buildings.

EPA designates regions and counties based on whether the area is complying with the NAAQS. A region that is meeting the air quality standard for a pollutant is designated as being in "attainment" for that pollutant. If the region is not meeting the air quality standard, it is designated as being in "nonattainment" for that pollutant. Areas that were previously designated as nonattainment areas but have recently met the standard are designated as "maintenance" areas. The study area

Exhibit 3.14 - *National Ambient Air Quality Standards for Washington, DC*

Pollutant		*Primary/Secondary Standard*	*Averaging Time*	*Level*	*Form*
CO		primary	8-hour	9 ppm	Not to be exceeded more than once per year
			1-hour	35 ppm	
Lead		primary and secondary	Rolling 3 month average	0.15 µg/m^3(1)	Not to be exceeded
NO_2		primary	1-hour	100 ppb	98th percentile, averaged over 3 years
		primary and secondary	Annual	53 ppb(2)	Annual Mean
O_3		primary and secondary	8-hour	0.075 ppm(3)	Annual fourth-highest daily maximum 8-hr concentration, averaged over 3 years
Particle Pollution	$PM_{2.5}$	primary and secondary	Annual	15 µg/m^3	Annual mean, averaged over 3 years
			24-hour	35 µg/m^3	98th percentile, averaged over 3 years
	PM_{10}	primary and secondary	24-hour	150 µg/m^3	Not to be exceeded more than once per year on average over 3 years
SO_2		primary	1-hour	75 ppb(4)	99th percentile of 1-hour daily maximum concentrations, averaged over 3 years
		secondary	3-hour	0.5 ppm	Not to be exceeded more than once per year

Source: EPA, 2012 as of October 2011

Notes:

(1) Final rule signed October 15, 2008. The 1978 lead standard (1.5 µg/m^3 as a quarterly average) remains in effect until one year after an area is designated for the 2008 standard, except that in areas designated nonattainment for the 1978, the 1978 standard remains in effect until implementation plans to attain or maintain the 2008 standard are approved.

(2) Official level of the annual NO_2 standard is 0.053 ppm, equal to 53 ppb, shown for the purpose of clearer comparison to the 1-hour standard.

(3) Final rule signed March 12, 2008. 1997 ozone standard (0.08 ppm, annual fourth-highest daily maximum 8-hour concentration, averaged over 3 years) and related implementation rules remain in place. In 1997, EPA revoked the 1-hour ozone standard (0.12 ppm, not to be exceeded more than once per year) in all areas, although some areas have continued obligations under that standard ("anti-backsliding"). 1-hour ozone standard is attained when the expected number of days per calendar year with maximum hourly average concentrations above 0.12 ppm is less than or equal to 1.

(4) Final rule signed June 2, 2010. The 1971 annual and 24-hour SO_2 standards were revoked in that same rulemaking. However, these standards remain in effect until one year after an area is designated for the 2010 standard, except in areas designated nonattainment for the 1971 standards, where the 1971 standards remain in effect until implementation plans to attain or maintain the 2010 standard are approved.

is designated a nonattainment area for ozone and $PM_{2.5}$ and a maintenance area for CO. The study area is in attainment for other criteria pollutants.

The CAA was amended in 1977 to require each state to maintain a State Implementation Plan (SIP) for achieving compliance with the NAAQS. In 1990, the CAA was amended to strengthen regulation of both stationary and motor vehicle emission sources. Conformity to the SIP is defined under the 1990 CAA amendments as "conformity to an implementation plan's purpose of eliminating or reducing the severity and number of violations of the national ambient air quality standards and achieving expeditious attainment of such standards."

3.7.1 Transportation Conformity

Transportation conformity is an analytical process required for federally funded transportation plans, programs, or projects. Air quality provisions in the CAA, Title 40 of the CFR, Parts 51 and 93 and transportation planning provisions of Title 23 and Title 49 of the United States Code, are intended to ensure that integrated transportation and air quality planning occurs in the areas designated by EPA as nonattainment or maintenance for ambient levels of CO, O_3, NO_2, $PM_{2.5}$, and PM_{10}. Transportation conformity requires two conformity determinations: regional conformity determination and project-level conformity determination in nonattainment and maintenance areas for ozone, CO, $PM_{2.5}$, and PM_{10}. The demonstration of project-level conformity consists of showing that the proposed action is listed in, and consistent with, a conforming regional transportation plan and transportation improvement plan (TIP). Metropolitan Washington Council of Governments (MWCOG) is the local agency that prepares the Constrained Long Range Plan (CLRP).

The CLRP identifies regionally significant transportation projects and programs that are planned in the Washington metropolitan area between 2012 and 2040. The MWCOG prepares the air quality conformity analysis for the CLRP and TIP.

3.7.2 Regional Conformity

The proposed action is in a federal nonattainment area for O_3 and $PM_{2.5}$ and a maintenance area for CO; therefore, transportation conformity is applicable to these pollutants. Regional conformity applies to long-range metropolitan transportation plans, shorter-term metropolitan TIPs, and transportation projects funded or approved by the Federal Highway Administration (FHWA) or Federal Transit Administration. The Air Quality Conformity Determination of the 2012 CLRP and the FY 2013–2018 TIP for the Washington Metropolitan Region was approved in July 2012. The analysis demonstrates that mobile source emissions, estimated for the TIP and for each analysis year of the long-range plan, adhere to emissions budgets.

For regional conformity, MWCOG performs modeling that includes proposed actions that are considered regionally significant. The roads within the study area are in this category and were not included in the regional highway network. Therefore, the proposed action is considered "not regionally significant" for the purposes of regional air quality.

The District of Columbia, the State of Maryland, and the Commonwealth of Virginia submitted a draft maintenance plan in October 2012 for the District of Columbia-MD-VA 1997 fine particulate ($PM_{2.5}$) nonattainment area to the EPA in support of the District of Columbia-MD-VA redesignation request for that standard (MWCOG, 2012). The maintenance plan demonstrates that $PM_{2.5}$ air quality in the District of Columbia-MD-VA area would remain compliant with the 1997 $PM_{2.5}$ NAAQS, as measured by a monitoring network that meets federal requirements. The plan includes mobile vehicle emissions budgets for the interim year of 2017 and the out year of 2025. It contains contingency measures that would be implemented in the unlikely event that the area experiences an exceedance of the 1997 $PM_{2.5}$ NAAQS.

3.7.3 $PM_{2.5}$ Hot Spot Analysis

On a local scale, a $PM_{2.5}$ hot spot analysis is not required to demonstrate project-level conformity according to the Transportation Conformity Guidance for Qualitative Hot-Spot Analyses in $PM_{2.5}$ and PM_{10} Nonattainment and Maintenance Areas. On March 10, 2006, the EPA published a final rule that established transportation conformity criteria and procedures for determining which proposed actions must be analyzed for local impacts in $PM_{2.5}$ and PM_{10} nonattainment and maintenance areas. The proposed action is in the District of Columbia, $PM_{2.5}$ nonattainment area, so the conformity criteria for local impacts were reviewed. According to 40 CFR 93.123(b)(1), proposed actions of air quality concern that meet one of the following criteria requires a $PM_{2.5}$ hot-spot analysis:

- ◊ New or expanded highway projects that have a significant number of or significant increase in diesel vehicles;
- ◊ Projects affecting intersections that have significant delays with a significant number of diesel vehicles;
- ◊ New bus and rail terminals and transfer points that have a significant number of diesel vehicles congregating at a single location;
- ◊ Expanded bus and rail terminals and transfer points that significantly increase the number of diesel vehicles congregating at a single location; and
- ◊ Projects in or affecting locations, areas, or categories of sites which are identified in the $PM_{2.5}$ or PM_{10} applicable implementation plan or implementation plan submission, as sites of violation or possible violation.

The vehicles using the roads in the study area are primarily gasoline-fueled vehicles. The proposed action would not: have a significant increase in diesel vehicles; have an increase in traffic volumes due to a significant number of diesel vehicles; include expanded diesel bus or rail terminals that would significantly increase the number of diesel vehicles; or affect sites identified in the implementation plan. Therefore, the project is not a proposed action of air quality concern according to 40 CFR 93.123(b)(1); a hot-spot analysis for $PM_{2.5}$ is not required;

and conformity requirements have been met. The proposed action meets the requirements of 40 CFR 93.116 because it would not cause or contribute to a new localized $PM_{2.5}$ violation or increase the frequency or severity of a $PM_{2.5}$ violation.

3.7.4 Mobile Source Air Toxic Analysis

FHWA *Interim Guidance Update on Mobile Source Air Toxic [MSAT] Analysis in NEPA* (2012) describes how to evaluate MSAT emissions for transportation projects. FHWA developed a tiered approach for analyzing MSATs, depending on specific circumstances. FHWA has identified three levels of analysis:

- ◊ No analysis for actions with no potential for meaningful MSAT effects
- ◊ Qualitative analysis for actions with low potential MSAT effects
- ◊ Quantitative analysis to differentiate alternatives for actions with higher potential MSAT effects

The projected annual average daily traffic for the proposed action would be less than 140,000 to 150,000 in the year 2032. Therefore, the proposed action does not meet the criteria for higher potential MSAT effects and would be classified as having a low potential for MSAT effects (second level).

For the Preferred Action Alternative, the amount of MSATs emitted would be proportional to the vehicle miles traveled (VMT). The VMT estimated for the Preferred Action Alternative is slightly higher than that for the No Action Alternative because the proposed action attracts vehicles that would not otherwise occur in the study area. This increase in VMT means MSATs in the study area under the Preferred Action Alternative would probably be higher than under the No Action Alternative.

For the No Action and Preferred Action Alternatives, emissions are virtually certain to be lower in the year 2032 than at present levels, as a result of the EPA's national control programs that are projected to reduce annual MSAT emissions by over 80 percent from 2010 to 2050. Local conditions may differ from these national projections in terms of fleet mix and turnover, VMT growth rates, and local control measures. However, the magnitude of the EPA-projected reductions is so great (even after accounting for VMT growth) that MSAT emissions in the study area are likely to be lower in the future.

3.8 NOISE

Noise is generally defined as unwanted sound. Sound is all around us; it becomes noise when it interferes with normal activities such as speech, concentration, or sleep. Ambient noise (the existing background noise environment) can be generated by a number of noise sources, including mobile sources, such as automobiles and trucks, and stationary sources, such as construction sites,

machinery, or industrial operations. There is an existing and variable level of natural ambient noise from sources such as wind, streams and rivers, and wildlife.

The physical characteristics of sound consist of intensity, frequency, and duration. Sound is created by acoustic energy, which produces pressure waves that travel through the air and are sensed by the eardrum. As the acoustic energy increases, the intensity or amplitude of these pressure waves increase, and the ear senses louder noise. The unit used to measure the intensity of sound is the decibel (dB).

Sound is measured with instruments that record instantaneous sound levels in dB. A-weighted sound level measurements (dB(A)) are used to characterize sound levels that can be sensed by the human ear. A-weighting emphasizes sounds in the range of human hearing (USEPA 1974). The typical measurement for quieter sounds, such as rustling leaves or a quiet room, is from 20 to 30 dB(A) (exhibit 3.15). Conversational speech is commonly 60 dB(A), and a residential lawn mower measures approximately 98 dB(A). Sound levels expressed herein are A-weighted.

Noise abatement was evaluated using DDOT and FHWA criteria. DDOT Noise Abatement Criteria (NAC) for specific land use activities were used in the evaluation of traffic noise. These criteria are based on criteria established in Title 23 CFR, Part 772, U.S. Department of Transportation, FHWA, Procedures for Abatement of Highway Traffic Noise and Construction Noise, and guidelines for "increase over existing" noise levels as set forth in DDOT Publication *District Department of Transportation Noise Policy*, dated January 10, 2011. Predicted noise levels were determined using Version 2.5 of FHWA Traffic Noise Model (TNM).

Exhibit 3.15 - *Noise Level Comparisons*

Noise levels are A-weighted hourly equivalent noise levels in decibels (Leq (h) dB(A)). The hourly Leq, or equivalent sound level, is the level of constant sound that, in an hour, would contain the same acoustic energy as the time-varying sound (i.e., the fluctuating sound levels of traffic noise are represented in terms of a steady-state noise level of the same energy content). A-weighting simulates the response of the human ear to noise. FHWA and

DDOT define noise impact based upon seven activity categories (exhibit 3.16). Individual sites in a given activity category are designated as noise sensitive receptors.

Ambient noise measurements were conducted throughout the study area. Within each noise sensitive area, short-term (20 minute duration) noise measurements and concurrent traffic counts were taken (exhibit 3.17).

Short-term measurements were taken at various times of the day and did not necessarily represent the noisiest condition at a particular measurement site. In addition, measurement sites were positioned to enable validation of the noise prediction model and to define existing noise levels for second-row residences. Measurements were used primarily for purposes of noise model validation, with year 2012 peak hour traffic volumes assumed in the prediction of worst-case existing noise levels. Measured existing Leq noise levels at short-term measurement sites ranged from 49 to 68 dB(A) (exhibit 3.18).

Using the traffic data obtained with the short-term noise measurements, noise levels were modeled and compared to measured noise levels. Measured versus modeled noise levels were within the acceptable 3 dB(A) range (except at Sites M-7 and M-8 where measured noise levels were elevated due to background noise that included ambulance sirens and helicopter flying). The results of the validation process was used to "build" FHWA TNM Version 2.5, used for purposes of modeling potential noise impacts for the No Action and Preferred Alternatives.

Exhibit 3.16 - *Hourly Weighted Sound Levels dB(A) for Various Land Use Activity Categories*

Land Use Activity Category	*Leq(h)*	*Description of Land Use Activity Category*
A	57 (exterior)	Lands on which serenity and quiet are of extraordinary significance and serve an important public need and where the preservation of those qualities is essential if the area is to continue to serve its intended purpose.
B	67 (exterior)	Residential
C	67 (exterior)	Active sport areas, amphitheaters, auditoriums, campgrounds, cemeteries, day care centers, hospitals, libraries, medical facilities, parks, picnic areas, places of worship, playgrounds, public meeting rooms, public or nonprofit institutional structures, radio studios, recording studios, recreation areas, Section 4(f) sites, schools, television studios, trails, and trail crossings.
D	52 (interior)	Auditoriums, day care centers, hospitals, libraries, medical facilities, places of worship, public meeting rooms, public or nonprofit institutional structures, radio studios, recording studios, schools, and television studios.
E	72 (exterior)	Hotels, motels, offices, restaurants/bars, and other developed lands, properties or activities not included in A – D or F.
F	-	Agriculture, airports, bus yards, emergency services, industrial, logging, maintenance facilities, manufacturing, mining, rail yards, retail facilities, shipyards, utilities (water resources, water treatment, electrical), and warehousing.
G	-	Undeveloped lands that are not permitted.

Exhibit 3.17 - *Noise Measurement and Analysis Sites*

Exhibit 3.18 - *Validation Results*

Site	Location	Roadway	Hourly Traffic Based on Concurrent Traffic Counts						TNM Model Calibration Noise Levels in dB(A)		
			Autos	Medium Trucks	Heavy Trucks	Buses	Motorcycles	Total	Modeled Leq(h)	Measured Leq	Difference
M1	Across Street from 110 Alaska Ave.	WB Alaska Ave.	87	0	0	3	0	90	59.5	62.9	-3.0
		EB Alaska Ave.	72	0	0	0	0	72			
M2	Our Lady of Lebanon Maronite Catholic Church	WB Alaska Ave.	87	0	0	3	0	90	59.8	59.0	0.8
		EB Alaska Ave.	72	0	0	0	0	72			
M3	Roundabout near 7726 15th Pl.	WB Alaska Ave.	78	0	0	3	0	81	48.6	48.5	0.1
		EB Alaska Ave.	105	0	0	6	0	111			
M4	Corner of 14th St. and Alaska Ave.	WB Alaska Ave.	318	9	3	15	6	351	63.2	64.1	-0.9
		EB Alaska Ave.	111	0	0	9	0	120			
M5	7301 Fern Street	WB Fern St.	30	0	0	0	0	30	56.0	55.2	0.8
		EB Fern St.	15	0	0	0	0	15			
M6	Residence at the corner of Floral St.& Alaska Ave.	WB Alaska Ave.	243	3	0	12	0	258	64.3	64.5	-0.2
		EB Alaska Ave	105	0	0	9	0	114			
M7	1129 Fern St. (setback)	WB Fern St.	9	0	0	0	0	9	49.5	53.1	-3.6
		EB Fern St.	9	0	0	0	0	9			
M8	7311 12th St. (setback)	NB 13th St.	5	0	0	0	0	5	47.6	52.2	-4.6
		SB 13th St.	4	0	0	0	0	4			
M9	1129 Fern St. (setback)	WB Fern St.	6	0	0	0	0	6	52.1	52.5	-0.4
		EB Fern St.	30	0	0	0	0	30			
M10	7311 12th St.	NB 12th St.	6	0	0	0	0	6	48.9	51.6	-2.7
		SB 12th St.	6	0	0	0	0	6			
M11	Parking lot, Corner of Elder St. & Georgia Ave.	NB Georgia Ave.	477	9	6	9	6	507	66.2	66.7	-0.5
		SB Georgia Ave.	531	12	3	9	0	555			
M12	Parking lot, Corner of Elder St. & Georgia Ave.	WB Elder St.	7	0	0	0	0	7	58.7	58.4	0.3
		EB Elder St.	8	0	0	0	0	8			
M13	Corner of Georgia Ave. & Dahlia St. (setback)	NB Georgia Ave.	633	6	3	15	0	657	67.7	68.3	-0.6
		SB Georgia Ave.	507	6	0	9	0	522			
M14	Corner of Georgia Ave. & Dahlia St. (setback)	WB Dahlia St.	45	0	0	0	0	45	55.6	57.3	-1.7
		EB Dahlia St.	45	0	0	0	0	45			
M15	Corner of Georgia Ave. & Butternut St. (setback)	NB Georgia Ave.	387	6	0	12	0	405	66.4	68.2	-1.8
		SB Georgia Ave.	528	6	6	12	0	552			

Continued on following page

Exhibit 3.18 - *Validation Results (Continued)*

Site	Location	Roadway	Hourly Traffic Based on Concurrent Traffic Counts						TNM Model Calibration Noise Levels in dB(A)		
			Autos	Medium Trucks	Heavy Trucks	Buses	Motorcycles	Total	Modeled Leq(h)	Measured Leq	Difference
M16	Corner of Georgia Ave. & Butternut St. (setback)	WB Butternut St.	51	15	0	33	0	99	57.9	59.1	-1.2
		EB Butternut St.	39	3	3	3	0	48			
M17	6669 13th St. (setback)	WB Aspen St.	345	3	0	3	3	354	60.8	62.5	-1.7
		EB Aspen St.	132	0	0	3	0	135			
M18	6665 13th St. (setback)	NB 13th St.	36	0	0	0	0	36	56.6	55.4	1.2
		SB 13th St.	15	0	0	0	0	15			
M19	1328 14th Pl. (setback)	WB Aspen St.	60	3	0	6	0	69	57.3	58.6	-1.3
		EB Aspen St.	60	0	0	0	0	60			
M20	Residence 14th Pl. (setback)	See M19	0	0	0	0	0	0	51.4	53.2	-1.8
		See M19	0	0	0	0	0	0			
M21	1432 Aspen St.	WB Aspen St.	123	3	0	0	0	126	58.8	59.9	-1.1
		EB Aspen St.	51	0	0	0	0	51			
M22	Back of Property on Whittier Pl. (1400 block)	See M21	0	0	0	0	0	0	49.8	49.4	0.4
		See M21	0	0	0	0	0	0			
M23	Background Rock Creek Park	Background								55.3	

Note: Traffic counts will be updated in the spring of 2014

FHWA TNM predicts noise levels at selected locations based on traffic data, roadway design, topographic features, and the relationship of the analysis site to nearby roadways. The percentages of automobiles, medium trucks, and heavy trucks used in the FHWA TNM were developed from review of traffic classification data obtained during the noise measurement periods corresponding to the periods of highest noise levels.

The noise levels from the future year were compared to the absolute NAC levels (66 dB(A)) and to the increases over existing year noise levels using DDOT's NAC to determine if there would be any noise impacts (exhibit 3.19). Noise impacts were identified based on predicted exterior noise levels exceeding the absolute 66 dB(A) criteria level for Activity Category B.

Under the No Action and Preferred Action Alternatives, noise levels in the study area are predicted to remain constant at Activity Category B (residential level) for most sites modeled. Noise levels are predicted to increase to Activity Category C (institutional level, e.g., schools and recreation areas) at 14 of the 58 sites modeled. The majority of the impacted receptors are along Georgia Avenue. These "increase over existing" noise levels were generally the result of normal traffic growth predicted to occur between 2012 and 2032. Therefore, projected noise impacts do not differ perceptibly between the No Action and Preferred Action Alternatives.

Exhibit 3.19 - *Summary of Modeled Noise Levels at Measurement Sites and Receptors*

Site ID	Existing 2011	Future No Action (2032)		Future Preferred Action Alternative (2032)	
		Noise Levels	Increase Over Existing	Noise Levels	Increase Over Existing
M1	63	63	0	63	0
M2	62	65	2	65	3
M3	51	53	2	53	2
M4	60	62	2	63	3
M5	56	59	2	59	2
M6	62	64	2	64	2
M7	55	58	3	58	4
M8	52	54	2	54	2
M9	58	61	2	61	3
M10	57	58	1	58	2
M11	67	67	0	67	0
M12	60	61	1	61	1
M13	69	69	-1	68	-1
M14	59	60	2	61	2
M15	69	69	0	69	0
M16	57	60	3	60	3
M17	62	62	0	62	0
M18	58	59	1	59	1
M19	62	63	2	63	2
M20	56	57	2	57	2
M21	64	65	1	65	1
M22	55	56	1	56	1
R1	58	60	2	60	2
R2	57	59	2	59	2
R3	58	60	2	60	2
R4	59	60	2	61	2
R5	53	56	3	56	3
R6	53	56	3	56	3
R7	56	58	3	59	3
R8	57	59	2	60	3
R9	60	62	2	62	2
R10	64	66	1	66	2
R11	66	66	0	66	0

Continued on following page

Exhibit 3.19 - *Summary of Modeled Noise Levels at Measurement Sites and Receptors (Continued)*

Site ID	Existing 2011	Future No Action (2032)		Future Preferred Action Alternative (2032)	
		Noise Levels	Increase Over Existing	Noise Levels	Increase Over Existing
R12	67	67	0	67	0
R13	67	67	0	66	-1
R14	67	67	0	67	-1
R15	69	69	0	69	-1
R16	69	69	0	68	0
R17	67	67	0	67	0
R18	69	69	0	69	0
R19	68	68	0	69	1
R20	67	67	1	68	1
R21	68	68	0	69	1
R22	66	67	1	67	1
R23	64	65	1	65	1
R24	64	64	0	64	0
R25	63	63	0	63	0
R26	62	62	0	62	0
R27	61	62	1	62	1
R28	60	62	2	62	2
R29	59	61	2	61	2
R30	62	64	2	64	2
R31	62	63	2	63	2
R32	62	63	2	63	2
R33	62	63	1	63	1
R34	62	63	1	63	1
R35	62	62	1	62	1
R36	61	62	1	62	1

Consideration of noise abatement was required for receptors with future noise levels that exceeded 66 dB(A). Noise abatement on non-controlled or partial access control highways usually is not feasible; most of the District has existing roadways with a narrow right of way. The District also has a historic character with view sheds of national importance. Based on the amount of direct access along the corridor and limited right of way, constructing noise barriers is not feasible.

3.9 LAND USE, AESTHETICS AND VISUAL RESOURCES

Land use, zoning, and public policy information was obtained from the District of Columbia Office of Planning, the DC-LRA, and NCPC.

3.9.1 Land Use and Zoning

3.9.1.1 Existing Land Use and Zoning

The study area contains a mixture of institutional, residential, commercial, transportation, and parks and open space land uses (exhibit 3.20). Land use on the former WRAMC consists of buildings, parking areas, small wooded areas and mowed lawn. The roads bordering the former WRAMC are Alaska Avenue and 16th Street to the west and Fern Street to the north. To the east and south, the study area consists of a vacant portion of the former WRAMC, as well as Georgia Avenue, which borders the overall campus to the east and Aspen Street, which borders the campus to the south. The neighborhoods of Shepherd Park, Takoma and Brightwood surround the former WRAMC.

The study area includes approximately 80 acres of Rock Creek Park to the west of 16th Street. The former WRAMC is surrounded on its northern and southern boundaries by predominantly low density residential land use, consisting of established neighborhoods of detached, single family homes. Interspersed in these areas are small, community-oriented institutions such as recreation centers and religious institutions. South of Aspen Street, there is an area of higher density residential (3- to 5-story apartment buildings) along 14th Street. Georgia Avenue is the primary commercial area for this part of the District. Land use along Georgia Avenue consists of a mixture of commercial and higher density residential (row houses and low-rise apartment buildings). Fronting Georgia Avenue, between Aspen and Dahlia Streets, are apartment buildings and a motel. North of Dahlia Street, a row of houses faces Georgia Avenue. Further to the east of Georgia Avenue, single-family residential land use predominates.

According to the District of Columbia Office of Zoning (2012), the study area contains three residential zoning designations:

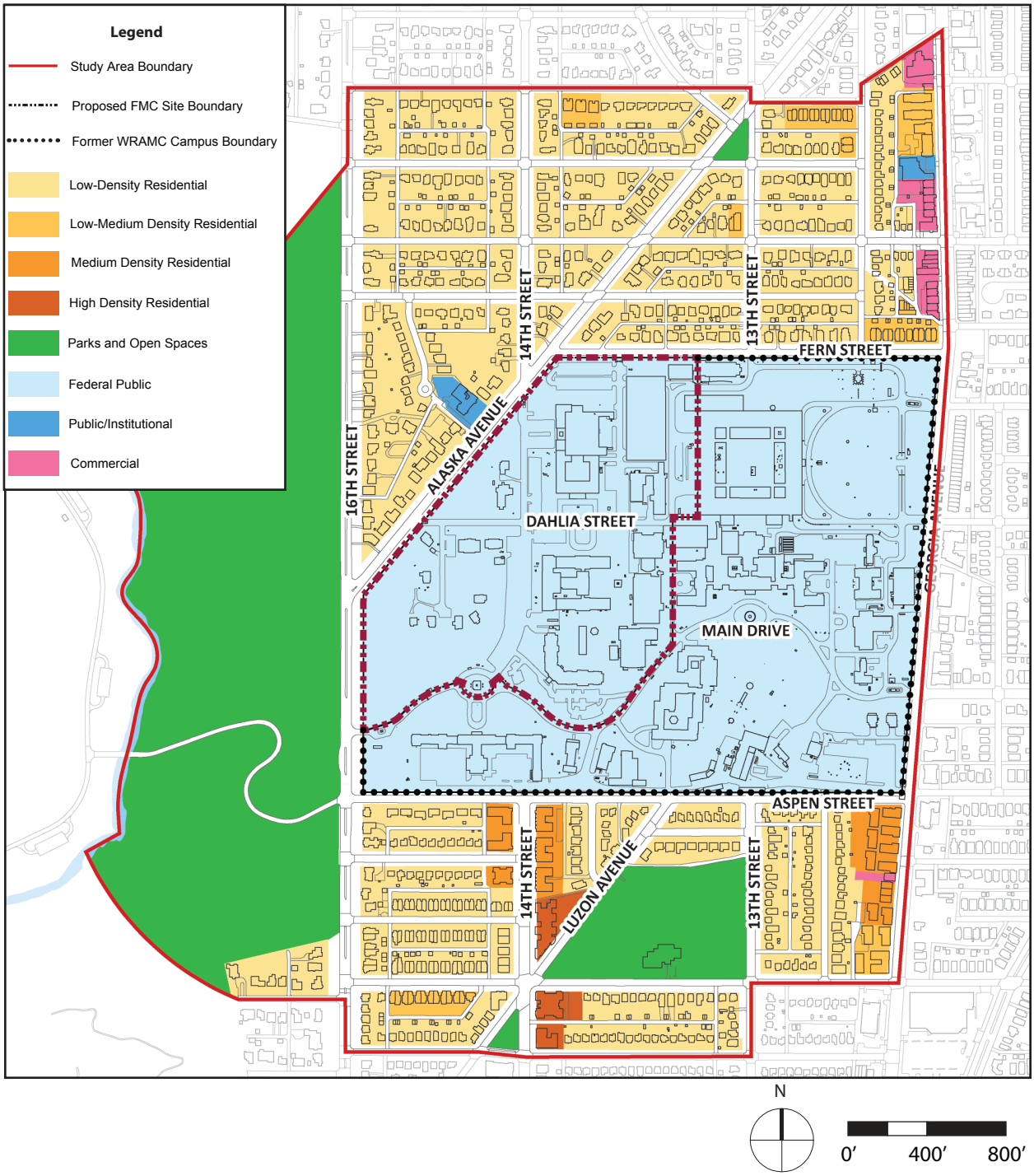
- R-1-B. Areas to the north and south are zoned R-1-B, which permits high-density (50-foot lot width, 5,000 square foot minimum lot size), single-family detached housing.

- R-5-B. The eastern portion of the study area, parallel to Georgia Avenue, is zoned R-5-B, a general residential zone permitting medium density (maximum lot occupancy of 60%) single-family dwellings, flats, and apartment buildings.

- R-5-A. In the southwestern portion of the study area, land surrounding the intersection of Aspen Street and 14th Street is zoned R-5-A, a residential zone permitting lower density (maximum lot occupancy of 40%) single family dwellings, flats and apartment buildings.

Development in the study area is regulated by the District of Columbia Zoning Commission and the Board of Zoning Adjustment (BZA). In cases where the BZA is performing functions regarding foreign mission and chancery applications, the composition of the Board consists of

Exhibit 3.20 - *Existing Land Use*



three mayoral appointees, the Director of the U.S. National Park Service or designee, and the Executive Director of NCPC.

The No Action Alternative would not result in a change to land use. Land use at the former WRAMC would continue to consist of buildings, parking areas, small wooded areas and mowed lawn. The long-term presence of a large vacant institutional campus would likely have a negative effect on the study area by making adjacent residential and commercial areas less desirable.

The Preferred Action Alternative would impact the 43.5 acres of land at the former WRAMC by converting vacant institutional land to active institutional land. The Preferred Action Alternative would likely have a positive effect on other study area land uses by making adjacent residential and commercial areas more desirable.

3.9.1.2 Future Land Use

Three planning initiatives would affect future land use in the study area:

The Comprehensive Plan for the National Capital (DC Office of Planning, 2006) – The plan is divided into two sets of elements—District Elements and Federal Elements. The District Elements are developed by the DC Office of Planning and the Federal Elements are developed by NCPC. The Federal Elements section of the plan includes policies to guide the location of facilities belonging to foreign governments and international organizations and ensure that their development is compatible with adjacent neighborhood uses.

The District Elements section of the plan divides the District into ten planning areas. The Rock Creek East planning area encompasses the project study area. The master plan focuses on continued improvements and redevelopment along Georgia Avenue. For the Upper Georgia Avenue/Walter Reed area, the plan focuses on the development of walkable shopping districts along Georgia Avenue, organized into commercial "nodes" that support the residential and commercial communities in the area. Improved transit access to this area is a critical component of the master plan. The plan cites the need to incorporate the redevelopment of WRAMC into future land use planning for the area.

Upper Georgia Avenue Great Streets Redevelopment Plan (DC Office of Planning, 2008) – This plan outlines the framework for future development and revitalization of Georgia Avenue from Decatur Street to Eastern Avenue, spurred by the District's Great Streets Initiative. For the section of Georgia Avenue abutting the former WRAMC, the plan recommendations are as follows:

- ◊ Reconnect WRAMC with the community, through street activating uses fronting Georgia Avenue.
- ◊ Consider construction of a new parking garage, wrapped with ground floor retail.
- ◊ Redevelopment must recognize strict site security requirements of any new federal tenant.

- ◊ New pocket parks and greenways would enhance the look of the corridor and provide safe pedestrian connections.

- ◊ Consider relocating Engine Company #22 to the southeast corner of former WRAMC.

Walter Reed Army Medical Center Small Area Plan Draft **(Walter Reed DC-LRA, 2012)** – This plan proposes a redevelopment framework for the 66.5 acre portion of the former WRAMC to be transferred to the DC-LRA (exhibit 1.7). The plan is being developed as a precursor to new proposed zoning amendments and development guidelines for the DC-LRA portion of the former WRAMC.

The DC-LRA plan stresses the importance of maintaining the existing site character, as well as complementing the adjacent land uses, by creating five horizontally stratified character areas. These areas are based upon the historic building types and uses, whose location was determined largely by topography. The reuse plan envisions that these character areas would continue across the entire campus, encompassing the study area. From north to south, the character areas consist of:

- ◊ Neighborhood scale (residential density)

- ◊ City/urban block (maximum density)

- ◊ Axial; formal

- ◊ Pastoral/lyrical/open space/park land

- ◊ Perimeter scale with topographical variety

The plan proposes medium density residential and mixed use of retail and offices in the eastern portion of the former WRAMC. The southern portion of the former WRAMC is proposed to contain more medium density residential, a proposed charter school, and mixed-use creative. In the southeastern portion of the campus, below Dahlia Street, the plan proposes a major open space area.

The No Action Alternative would not impact future land use.

The Preferred Action Alternative would have a positive effect on future land use by supporting planned redevelopment at the DC-LRA portion of the former WRAMC. The FMC would be a large employment center adjacent to the DC-LRA development. Employees would likely patronize the retail and food service businesses planned for the DC-LRA development, and some might choose to reside in the planned residential portion of the development.

3.9.1.3 Community Facilities and Services

Community facilities within the study area consist of two education facilities, six places of worship, a library, and three recreation areas/parks (exhibit 3.21). The study area is served by DC Public Schools; the 45,000-student public school district for the Washington, DC, elementary and middle school facilities are at the Takoma Education Campus on Dahlia Street immediately to the east of the study area. Coolidge High School, southeast of the study area on 5th Street, also serves students in the study area (DC Public Schools, 2012).

Emergency service facilities are located outside the study area in the Brightwood community. Fire protection and EMS services for the study area are provided by Engine Company #22 at 5760 Georgia Avenue. Police service is provided by the DC Metropolitan Police Department, District 4 at 6001 Georgia Avenue.

Parks and recreation facilities in the study area primarily consist of Rock Creek Park, a 2,800 acre park managed by the National Park Service. Rock Creek Park contains an extensive pedestrian/bicycle/horseback riding trail system, playground and picnic areas, tennis courts, boat rentals, and amphitheater. The park contains historic buildings and exhibits and provides educational opportunities based on the natural and cultural resources present (NPS, 2012). Other park and recreation facilities in the study area include a small memorial park and the Fort Stevens Recreation Center. Facilities at the recreation center include tennis and basketball courts, baseball fields and a recreation building.

The No Action Alternative would not impact community facilities and services.

The Preferred Action Alternative would not impact education facilities, places of worship, libraries, or recreation areas/parks. The Preferred Action Alternative would impact emergency response services, which would be responsible for providing emergency service to the FMC.

Exhibit 3.21 - *Community Facilities*

Facility Type	*Name*	*Address*
University	Our Lady of Lebanon Maronite Seminary	7164 Alaska Avenue
School	Our Children Infant Care and Pre-School	6640 Georgia Avenue
Place of Worship	St. John of Rila Bulgarian Eastern Orthodox	1629 Van Buren Street
Place of Worship	Shepherd Park Church of God	7239 Georgia Avenue
Place of Worship	New Second Baptist Church	7205 Georgia Avenue
Place of Worship	Our Lady of Lebanon Maronite Catholic Church	7164 Alaska Avenue
Place of Worship	National Spiritual Science Center	1325 Fern Street
Place of Worship	Aum Spiritual Science	1437 Whittier Street
Library	Juanita E. Thomton-Shepherd Park Library	7420 Georgia Avenue
Park	Fort Stevens Recreation Center	1327 Van Buren Street
Park	Marvin Caplan Memorial Park	13th and Holly Streets
Park	Rock Creek Park & Piney Branch Parkway	Klingle Road to DC Line, West of 16th Street

Source: DC Office of the Chief Technology Officer, Geographic Information System, 2012

3.9.2 Visual Resources and Aesthetics

Visual character is a composite description of the visual elements of an area, considering the form, scale, and diversity of man-made and natural landscape features. Visual sensitivity is considered as high, moderate, or low based on the potential for the public to discern and tolerate visual change, considering existing visual quality and based on three interrelated criteria: unity, intactness, and vividness.

Unity pertains to how well individual elements visually relate to one another—visual unity is achieved in a landscape when a person can establish a visual connection between every component within a given viewshed.

Intactness pertains to the integrity of a landscape, or the degree to which the landscape is free from incongruent features that detract from the otherwise established visual pattern.

Vividness relates to the presence of distinctive landscape features, such as topography, colors, or patterns that combine to form a striking or memorable visual pattern within the viewshed.

Within the study area, public thoroughfares border the former WRAMC campus on all sides, providing separation and some buffering between the institutional and surrounding residential land uses. In general, existing institutional buildings and landscaping are visually compatible with the adjacent residential development, except along the southern campus boundary, where maintenance facilities, including two tall industrial stacks, conflict visually with residential areas. The largest institutional buildings are set in the interior of the former WRAMC to reduce their visibility from residential areas. Rock Creek Park is considered a visually sensitive area; however, the topography of the park is such that the former WRAMC is not visible from interior park trails.

The No Action Alternative would not impact visual resources and aesthetics.

The Preferred Action Alternative would have minor impacts on visual resources and aesthetics. Construction and construction sites are usually considered unattractive and would have a short-term impact on views from surrounding areas.

After the FMC is constructed, views of the site of the former WRAMC from surrounding areas would be similar to current views of institutional land. The Preferred Action Alternative would be designed to retain historic campus character. Site development would be visually consistent with current and future adjacent land uses. Specific lot development characteristics would be dependent upon the lot's location.

3.10 SOCIOECONOMICS

The analysis of socioeconomics considered the six census tracts that fall within the study area. The following is a brief description of the demographic characteristics of the study area compared with the District of Columbia overall.

Current population and labor force trends were identified using data from the U.S. Census Bureau. To identify potential future population and labor force trends, data was obtained from the Cooperative Forecasting program administered by the MWCOG. The program publishes a series of forecasts, or "rounds," which provide land use activity forecasts for employment, population, and households by five year increments, typically covering a 20- to 30-year timeframe (MWCOG, 2013).

Data was compiled using traffic analysis zones (TAZs), the geographical boundaries used within the MWCOG employment model. The boundaries are highly similar to census tract boundaries. Therefore, it was considered methodologically appropriate to present future employment data using TAZ boundaries.

3.10.1 Population

The population of the study area and the District of Columbia have grown over the past decade (exhibit 3.22). Population grew at a slightly slower rate in the study area (3.7 percent) than in DC overall (5.7 percent). The study area accounted for 3.6 percent of total population in the District of Columbia in 2010 (U.S. Census Bureau, 2013a, 2013c).

Based on land availability, planning policies, and regional growth trends, the study area is projected to experience modest growth between 2010 and 2035 (exhibit 3.23). Population in DC is expected to increase by 23 percent over the 25-year period and population in the study area is projected to grow by 24 percent, reaching approximately 30,200 in 2035 (MWCOG, 2013). The population forecasts presume that the federal government and the DC-LRA would proceed with redevelopment of the former WRAMC; this growth represents approximately 82 percent of the total for the study area. Most of the remaining growth is projected to occur near the Metro station in Takoma and along Georgia Avenue, consistent with the adopted Small Area Plans for each location.

3.10.2 Housing

The study area has a high rate of home ownership in comparison to the District of Columbia overall (exhibit 3.24). There is a lower percentage of vacant residences, and a corresponding higher rate of occupied units in the study area than are found in DC (U.S. Census Bureau, 2013b).

Single-family homes are the largest type of housing in the study area followed by multi-family housing, while the predominant housing structure in DC is multi-family housing (exhibit 3.25). The study area has a higher rate of detached single-family homes than in DC, but has a lower rate of attached single-family homes than in DC (U.S. Census Bureau, 2013b).

Within the study area, the average length of time for residing in the same housing unit exceeds the District of Columbia, overall. Residents in the study area stay in owner-occupied residences an average of 17 years, and stay in renter-occupied units an average of seven years (exhibit 3.26) (U.S. Census Bureau, 2013b).

Exhibit 3.22 - *Population Change 2000-2010*

Geographic Area	Population		% Change 2000-2010
	2000	2010	
Study Area	21,024	21,798	3.7%
The District of Columbia	572,059	601,723	5.2%

Source: U.S. Census Bureau 2000 and 2010 Census

Exhibit 3.23 - *Population Projections*

Geographic Area	Total Population	Population Projections		
	2010	2020	2030	2035
Study Area	21,798	27,171	29,414	30,180
The District of Columbia	601,723	676,326	722,763	741,181

Source: MWCOG 2012

3.10.3 Economic Activity, Employment and Income

Between 2000 and 2010, the labor force in the study area grew by 31 percent, a faster rate of growth than in the District of Columbia overall (11 percent) (exhibit 3.27). The percentage of the population in the study area not participating in the labor force fell over the decade at a faster rate than in the District of Columbia. The proportion of the labor force in the study area employed in the armed forces decreased from 2000–2010 (U.S. Census Bureau, 2013a, 2013b).

The number of employed persons grew in both the study area and the District of Columbia overall from 2000–2010 (exhibit 3.28). In 2000, the unemployment rate in the study area was substantially lower (6.1 percent) than the District of Columbia overall (10.8 percent). By the end of the decade, the unemployment rate in the study area had risen substantially, due largely to the national recession of 2007–2009. The District of Columbia unemployment rate, which had fallen sharply after 2000, rose during the national recession, but remained lower than at the

Exhibit 3.24 - *Housing Characteristics, 2010*

Geographic Area	Housing Units	Occupied Housing Units	Owner-Occupied Housing Units	Vacant Residences
Study Area	9,776	91%	55%	9%
The District of Columbia	293,492	88%	44%	12%

Source: U.S. Census Bureau, American Community Survey 2006-2010

Exhibit 3.25 - *Housing Units by Structure*

Geographic Area	1-Unit, Detatched	1-Unit, Attached	2 Units	3 or More Units
Study Area	34%	21%	1%	45%
The District of Columbia	12%	26%	3%	59%

Source: U.S. Census Bureau, American Community Survey 2006-2010

beginning of the decade. By 2010, the unemployment rate in the study area was slightly higher than the District of Columbia overall (U.S. Census Bureau, 2013a, 2013b).

According to the Bureau of Labor Statistics (BLS), overall unemployment in the District of Columbia decreased in 2012 from 2010 levels (BLS, 2013). While BLS data varies in collection methodology from the Census Bureau, the regional trend in unemployment can be demonstrated.

The District of Columbia Department of Employment Services (DCDES) publishes a list of the top 200 firms in the District. Exhibit 3.29 shows the 15 largest firms (ranked by size of workforce) identified by DCDES. Educational institutions and hospitals are the predominant largest non-government employers. In addition to the organizations listed, District of Columbia Public Schools and the District of Columbia government are large employers (DCDES, 2013).

The number of jobs in the study area is expected to decrease from approximately 14,103 today to 12,834 in 2035 (MWCOG, 2012a). These forecasts presume a sharp drop in employment between 2010 and 2020 as federal jobs at Walter Reed Hospital are repositioned. However,

Exhibit 3.26 - *Average Length of Time in Home (years)*

Geographic Area	*Housing Units*	*Owner-Occupied Housing Units*	*Rented-Occupied Housing Units*
Study Area	12	17	7
The District of Columbia	7	12	5

Source: U.S. Census Bureau, American Community Survey 2006-2010

Exhibit 3.27 - *Labor Force Trends, 2000-2010*

Geographic Area	*Total: Population 16 Years and Over*		*In Labor Force*			*In Labor Force: in Armed Forces*		*Not in Labor Force*	
	2000	*2010*	*2000*	*2010*	*% Change[1]*	*2000*	*2010*	*2000*	*2010*
Study Area	17,466	20,480	11,426	14,960	31%	3%	1%	35%	27%
The District of Columbia	469,041	493,401	298,225	331,098	11%	1%	1%	36%	33%

Source: U.S. Census Bureau, 2000 Census and American Community Survey 2006-2010
Note:
% Change in labor force from 2000-2010

Exhibit 3.28 - *Employment and Unemployment, 2000-2010*

Geographic Area	*In Labor Force: Civilian Employed*			*In Labor Force: Civilian Unemployed*	
	2000	*2010*	*% Change 2000-2010*	*2000*	*2010*
Study Area	10,219	11,360	11.2%	6.1%	9.6%
The District of Columbia	263,108	297,189	13.0%	10.8%	9.4%

Source: U.S. Census Bureau, 2000 Census and American Community Survey 2006-2010

they presume that most of these jobs would be replaced in the long run by new jobs on the site of the former WRAMC as employment begins to increase slowly from 2020 to 2035; and that additional employment growth would occur on Georgia Avenue, Kennedy Street, in the Washington Hospital Center complex, at the Armed Forces Retirement Home, and in other established business districts within the Planning Area (exhibit 3.30).

Median household income in the District of Columbia and the study area are summarized in exhibit 3.31. Income is shown in inflation-adjusted 2012 dollars, to allow comparison between time periods. Median household income in the District of Columbia increased over the decade from 1999–2010. In contrast, the median income in the study area decreased substantially, although it remained higher than the District overall. The median household income in the study area was 39 percent greater than the District of Columbia's in 1999 and 12 percent greater in 2010 (U.S. Census Bureau, 2013a, 2013b).

3.10.4 Tax Revenue

The real property tax rate in the District of Columbia for FY 2011-2012 was $0.85 per $100.00 of assessed value (GDC, 2012).

The No Action Alternative would not impact socioeconomic resources.

The Preferred Action Alternative would have a slight positive impact on population and housing. The Preferred Action Alternative would create a positive impact on employment, earnings and

Exhibit 3.29 - *Major Private Employers within the District of Columbia*

Business	*Description*
Georgetown University	Higher education
George Washington University	Higher education
Washington Hospital Center	Medical services
Children's National Hospital	Medical services
Howard University	Higher education
Georgetown University Hospital	Medical services
American University	Higher education
Fannie Mae	Mortgage finance (government-sponsored enterprise)
The Catholic University of America	Higher education
Providence Hospital	Medical services
Howard University Hospital	Medical services
Sibley Memorial Hospital	Medical services
The George Washington Hospital	Medical services
Admiral Security Service	Security services corporation
The Washington Post	Media corporation

Source: The District of Columbia Department of Employment Services

Exhibit 3.30 - *Employment Projections*

Geographic Area	2010	2020		2030		2035	
	Total Employment	Total Employment	Projected % Change 2010-2020	Total Employment	Projected % Change 2010-2030	Total Employment	Projected % Change 2010-2035
Study Area	14,103	11,522	-18%	12,178	-14%	12,834	-9%
The District of Columbia	783,460	865,726	11%	929,641	19%	955,757	22%

Source: MWCOG, 2012

Exhibit 3.31 - *Study Area Median Household Income, 1999-2010*

Geographic Area	Median Household Income in 1999 (2012 $)	Median Household Income in 2010 (2012 $)	% Change, 1999[1]-2010
Study Area	$94,905	$70,325	-26%
The District of Columbia	$57,935	$61,780	7%

Source: U.S. Census Bureau, 2000 Census and American Community Survey 2006-2010
Note:
Income data in the 2000 Census was collected based on respondents' prior 12-month income or income in 1999.

consumer expenditures in the regional economy. MWCOG employment projections assume FMC redevelopment would occur, so employment growth due to the FMC is captured within the MWCOG estimates.

As federal government property leased to foreign missions, chanceries would not generate tax revenue for the District. However, to the extent that chancery employees support study area retail businesses or choose to reside within the study area, the FMC would have a slight positive effect on study area tax revenue.

Employment, earnings and consumer expenditure impacts of the Preferred Action Alternative were calculated using the Regional Input-Output Modeling System (RIMS II), published by the Department of Commerce, Bureau of Economic Analysis. Input-output analysis is used for measuring the economic impacts of development, as well as public investments or programs. RIMS II provides estimates of the dollar value impacts to various sectors of the economy (outputs) that are caused by spending in other areas (inputs).

Impacts were measured at the regional level, defined as the Washington Primary Metropolitan Statistical Area. The Washington Primary Metropolitan Statistical Area (PMSA) consists of 25 jurisdictions in the Washington, DC region (exhibit 3.32).

Economic impacts are classified as direct or indirect. The direct impacts are a result of economic activity attributed to the project itself or occurring inside the footprint of the project. For example, jobs located in the proposed chancery buildings would be considered a direct economic impact. Indirect impacts refer to the impacts that occur as a result of the direct impacts. For example, furniture purchased by a chancery would be considered an indirect impact of the project. Indirect impacts include induced impacts, which result when the earnings of construction workers and chancery employees, as well as growth in earnings at suppliers, lead to further sales for businesses that provide consumer goods and services.

The Preferred Action Alternative would result in new employment both from the construction of the FMC and from operation of future chanceries. The jobs associated with the construction of the project are a one-time impact and do not represent an ongoing change to regional employment, while the jobs created from chancery operation represent a permanent impact to the regional economy.

The economic change resulting from the Preferred Alternative was measured in number of jobs created. The impacts are also described in terms of earnings associated with the employment change, as well as consumer expenditures, or the spending that would flow through the regional economy per year as a result of the Preferred Alternative. It is important to note that these are alternative measurements of the same impact and should not be added together.

The analysis used the following assumptions:

Exhibit 3.32 - *Jurisdictions in the Washington PMSA*

District of Columbia	
Washington	
Maryland	
Calvert County	Charles County
Frederick County	Montgomery County
Prince George's County	
West Virginia	
Berkeley County	Jefferson County
Virginia	
Arlington County	Clarke County
Culpepper County	Fairfax County
Fauquier County	King George County
Loudoun County	Prince William County
Spotsylvania County	Stafford County
Warren County	Alexandria (City)
Fairfax (City)	Falls Church (City)
Fredericksburg (City)	Manassas (City)
Manassas Park (City	

- ◊ Market conditions were not considered or predicted. The proposed action was assumed to be financially feasible and sufficient demand was assumed to be present for each component of the development. Financial feasibility may change over time and could impact phasing, square footage of each building, and the need for public support for infrastructure improvements.

- ◊ The analysis did not distinguish between new jobs created and existing jobs relocated from elsewhere nearby, but did assume that all employees directly employed in the chanceries would be foreign nationals not previously residing in the country.

- ◊ Because of extraterritoriality laws and bilateral agreements, it was assumed that the District of Columbia would not collect any property taxes from the foreign missions.

Temporary Impacts from Construction

Construction costs used in the analysis were based on a cost report prepared for the project (Morris Wade Associates 2013). Costs were calculated for the full build out of the proposed FMC, which would total approximately 1.26 million square feet of new construction. The $617 million construction cost includes horizontal construction costs of $115 million and vertical construction costs of $502 million (exhibit 3.33). Horizontal construction consists of the demolition of any existing structures, as well as site preparation, including grading, installing infrastructure, and paving roadways. Vertical construction consists of the development of the new chancery structures, estimated to cost on average $400 per square foot, equivalent to a high-end office property in the Washington, DC, metro area. The average wage for construction employees was based on the BLS wage estimate for the Washington PMSA construction sector as of May 2012.

Construction of the FMC under the Preferred Action Alternative would create an estimated 3,053 temporary jobs, the equivalent of $131 million in wages paid, and as much as $109 million in consumer expenditures resulting from the new employment (exhibits 3.33, 3.34 and 3.35).

Permanent Impacts from FMC Operation

Operation of the FMC under the Preferred Action Alternative would generate an estimated 3,410 permanent jobs. It is expected that the overwhelming majority of these jobs (2,524) would be filled by foreign nationals either relocated from current chancery facilities in Washington, D.C. or not previously residing in the country. The remainder would be indirect employment (886). Indirect employment refers to the number of employees who are not employed by the foreign missions, but are jobs created or supported as a result of increased demand for goods and services as a result of the FMC's economic impact. This employment would result in an estimated $206 million in earnings and as much as $172 million in consumer expenditures within the region (exhibits 3.36, 3.37, 3.38 and 3.39).

Exhibit 3.33 - *Temporary Employment Impact Created by Construction of the Preferred Action Alternative*

Construction Costs	
Horizontal Development	$114,798,500
Vertical Development	$502,487,600
Total Construction Cost	$617,286,100
Labor Hours per $1,000 of Construction Cost[1]	8.1
Total Construction Labor Hours	5,000,018
Total Annual Hours per FTE[2]	2,080
Total Direct Construction Employment Impact (FTEs)	2,404
Employment Multiplier[3]	1.27
Indirect Employment from Construction Spending	649
Total Employment Impact (# Jobs)	**3,053**

Notes:
[1]Urban Land Institute
[2]Full Time Equivalent working 2,080 hours annually
[3]Washington PMSA Direct Effects Employment Multiplier for Construction Industry, BEA RIMS II, 2008.

Exhibit 3.34 - *Temporary Earnings Impact Created by Construction of the Preferred Action Alternative*

Total Direct Construction Employment	2,404
Total Construction Labor Hours	5,000,018
Average Wage / Hour – Construction[1]	$20.48
Total Direct Construction Earnings Impact	$102,400,400
Earnings Multiplier[2]	1.28
Total Indirect Earnings Impact from Construction Spending	$28,672,100
Total Earnings Impact (2013 $)	**$131,072,500**

Notes:
[1]BLS Occupational Wage Estimates for Construction Sector for DC-MD-VA-WV PMSA, May 2012.
[2]Washington PMSA Direct Effects Earnings Multiplier for Construction industry, BEA RIMS II, 2008.

Exhibit 3.35 - *Consumer Expenditures Resulting from Construction of the Preferred Action Alternative*

Total Earnings from Construction Spending	$131,072,500
Disposable Income Percentage[1]	89.1%
Disposable Income	$116,785,600
Consumer Expenditures Percentage[2]	93.5%
Total Consumer Expenditures (2013 $)	**$109,194,500**

Notes:
[1]BEA, September 2011 - disposable income was 89.1% of personal income.
[2]BEA, September 2011 - consumption expenditures were 93.5% of disposable income.

Exhibit 3.36 - *Permanent Employment Impact Created by the Preferred Action Alternative*

Total Square Feet	1,256,219
Direct FTE Employees per 1,000 square feet[1]	2
Direct Permanent Employment Impact (FTEs)	2,524
Employment Multiplier[2]	1.3527
Indirect Employment Impact	886
Total Permanent Employment Impact (# Jobs)	**3,410**

Notes:
[1]FTE employee staffing per square foot based on Jones Lang LaSalle market intelligence and industry standards.
[2]Washington PMSA Direct Effects Employment Multiplier for Other Services industry (office employees), BEA, RIMS II, 2008.

Exhibit 3.37 - *Annual Direct Earnings by Job Classification*

Job Classification	*Number of Jobs*	*Annual Hours*	*Total Hours*	*Average Annual Wage*	*Total Annual Direct Earnings*
Foreign Civil Servant	2,512	2,080	5,224,960	$60,000*	$150,720,00
Maintenance	7	2,080	14,560	$31,467	$220,269
Security	5	2,080	10,400	$28,312	$141,560
Total	**2,524**		**5,249,920**		**$151,081,800**

**Jones-Lang-LaSalle estimate of average annual wage of a foreign civil servant.*

Exhibit 3.38 - *Permanent Earnings Impact Created by the Preferred Action Alternative*

Direct Earnings Impact Per Year	$151,081,800
Earnings Multiplier[1]	1.3638
Indirect Earnings Impact	$54,963,600
Total Permanent Earnings Impact (2013 $)	**$206,045,400**

Notes:
[1]Washington PMSA Direct Effects Earnings Multiplier for Other Services Industry (office employees), BEA, RIMS II, 2008.

Exhibit 3.39 - *Consumer Expenditures Resulting from FMC Operation under the Preferred Action Alternative*

Total Earnings Impact	$206,045,400
Disposable Income Percentage[1]	89.1%
Disposable Income	$183,586,400
Consumer Expenditures Percentage[2]	93.5%
Direct Consumer Expenditures (2013 $)	**$171,653,300**

Notes:
[1]BEA, September 2011 - disposable income was 89.1% of personal income.
[2]BEA, September 2011 - consumption expenditures were 93.5% of disposable income.

3.11 MINORITY AND DISADVANTAGED POPULATIONS

Environmental Justice (EJ) is defined by the EPA's Office of Environmental Justice as:

> "…the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development and implementation of federal actions in accordance with applicable environmental laws, regulations, and policies. Fair treatment means that no group of people, including racial, ethnic, or socioeconomic group should bear a disproportionate share of the negative environmental consequences resulting from industrial, municipal, and commercial operations or the execution of federal, state, local, and tribal programs and policies" (USEPA, 1998).

EO 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations directs federal agencies to take appropriate and necessary steps to identify and address disproportionately high and adverse environmental effects of federal agency actions on minority and low-income populations.

For the analysis of populations afforded consideration and protection under EJ, a minority population is defined as a readily identifiable group or groups of minority persons who live in geographic proximity. Minority persons include an individual who identifies as a Black or African American, Hispanic or Latino, Asian or Asian-American, American Indian or Alaska Native, Native Hawaiian or Pacific Islander, or who identifies as a multi-racial (two or more races) individual.

For the purposes of EJ analysis, low-income populations were defined as a readily identifiable group of persons whose income is at or below the poverty level, as determined by the U.S. Census Bureau, which develops poverty thresholds that are applied to per capita income data, and used to determine poverty status.

The general methodology for addressing EO 12898 consists of:

- ◊ Identifying thresholds for determining EJ populations within the study area;
- ◊ Identifying disproportionately high and adverse effects on EJ populations that would potentially result from the proposed project; and
- ◊ Determining whether the adverse effects are disproportionate in relation to other populations within the study area.

The study area for the EJ analysis consisted of 18 census block groups within or immediately adjacent to the former WRAMC for the analysis of percent minority; and six census tracts within or immediately adjacent to the former WRAMC for the analysis of percent low income. A census tract is a geographic unit of analysis which typically contains 4,000 people. A block group is

a geographic unit of analysis which typically contains between 600 and 3,000 people (U.S. Census Bureau, 2013d). The block groups and census tracts were analyzed to identify affected populations and/or EJ-related issues that may not be apparent at a larger geographic scale.

Minority population data and low-income population data (derived as the percent of total population living below the corresponding economic poverty level) were obtained from the U.S. Census American Community Survey five-year average data for 2006-2010.

The Council on Environmental Quality (CEQ) guidance for determining EJ populations calls for defining specific thresholds, which are used to identify "meaningfully greater" concentrations of minority and low-income residents than can be found in a larger reference population (CEQ, 1997). For this study, the larger reference populations were defined as the study area overall, as well as the District of Columbia. An EJ population was considered to be present in a census tract or block group when the percent of minority residents exceeded 61 percent, or the percent of low-income residents exceeded 12 percent. These thresholds correspond to the percent of minority and low-income residents found in the larger reference populations (exhibit 3.40).

Minority and low-income characteristics of each study area were analyzed to identify geographic locations that are considered as EJ populations. Through application of the 61 percent minority population threshold, 17 of the 18 block groups were identified as EJ populations (exhibit 3.41).

Through the application of the 12 percent below poverty threshold, three of the six census tracts were identified as EJ populations (exhibit 3.42). Additionally, of the six census tracts, three exceeded both the minority and low income thresholds.

Of the total population in the study area of approximately 22,047, approximately 20,626 residents (94 percent) reside in block group areas identified as an EJ population (U.S. Census Bureau, 2013b).

EO 13166, Limited English Proficiency (LEP) requires federal agencies to ensure that they take reasonable steps to provide meaningful access for LEP individuals.

For the purposes of this analysis, linguistically isolated households were defined as a household in which all members 14 years and older speak a non-English language at home and speak English less than "very well."

Exhibit 3.40 - *EJ Statistics of Comparable Geographic Units*

Geographic Area	*Percent Minority Population (ACS 2006-2010)*	*Percent Population Below Poverty Level (ACS 2006-2010)*
Study Area	82.7%	12.5%
The District of Columbia	61.9%	18.2%
EJ Threshold for Analysis	61.0%	12.0%

Source: American Community Survey 2006-2010, 5-year Average

Exhibit 3.41 - *Percent Minority by Block Group*

Census Tract	Block Group	Total Population	Total Black or African American (%)	Total American Indian or Alaskan (%)	Total Asian (%)	Total Native Hawaiian (%)	Total Other Race (%)	Total 2 or more races (%)	Total Minority (%)	Total Hispanic or Latino Origin (%)
16	1	833	63%	2%	0%	0%	4%	1%	70%	6%
16	2	1,133	65%	0%	0%	0%	22%	8%	94%	22%
16	3	896	83%	0%	0%	0%	0%	0%	83%	2%
16	4	1,586	76%	0%	0%	0%	0%	1%	77%	1%
17.02	1	1,451	61%	0%	9%	0%	1%	3%	74%	2%
17.02	2	1,014	68%	0%	2%	0%	1%	6%	77%	2%
18.03	1	1,112	85%	0%	1%	0%	7%	3%	96%	7%
18.03	2	1,853	72%	0%	7%	0%	7%	2%	87%	17%
18.04	1	902	70%	0%	0%	0%	2%	0%	71%	33%
18.04	2	1,850	71%	3%	0%	0%	18%	0%	92%	24%
18.04	3	2,057	47%	2%	2%	0%	24%	1%	75%	46%
19.01	1	1,178	83%	0%	2%	0%	6%	0%	91%	14%
19.01	2	948	94%	0%	1%	0%	0%	0%	95%	0%
19.01	3	1,296	72%	2%	0%	0%	15%	3%	92%	22%
19.01	4	775	85%	0%	4%	0%	0%	0%	90%	0%
103	1	1,421	44%	0%	5%	0%	1%	3%	51%	5%
103	2	1,117	77%	0%	3%	0%	12%	0%	92%	14%
103	3	625	68%	4%	4%	0%	16%	0%	91%	22%

Source: American Community Survey 2006-2010, 5-Year Average

Exhibit 3.42 - *Percent Low Income by Census Tract*

Census Tract	Total Population	Population with Income in the Past 12 Months Below Poverty Level
16	4,448	4%
17.02	2,465	10%
18.03	2,965	14%
18.04	4,809	27%
19.01	4,174	11%
103	2,710	5%

Source: American Community Survey 2006-2010, 5-year Average

The study area for this analysis consisted of 18 census block groups within or immediately adjacent to the Walter Reed campus for the analysis of linguistically isolated populations. Linguistically isolated population data were obtained from the U.S. Census American Community Survey five-year average data for 2006–2010. The District of Columbia's linguistically isolated population is approximately 2.5 percent and the study area's linguistically isolated population is approximately 8.5 percent. Eight of the 18 block groups were identified as having linguistically isolated households greater than 2.5 percent (exhibit 3.43).

EO 12898 defines a disproportionately high and adverse effect upon EJ communities as an effect that is predominantly borne by, or would be suffered by, an environmental justice population and that is appreciably more severe and greater in magnitude than adverse effects suffered by a non-EJ population.

The No Action Alternative would not result in adverse effects to populations afforded consideration and protection under EJ.

The Preferred Action Alternative would not result in adverse effects to populations afforded consideration and protection under EJ that would exceed those effects predicted to be borne by non-EJ populations. No disproportionate comparative indirect and cumulative effects of the proposed action between EJ and non-EJ populations were identified.

Exhibit 3.43 - *English Speaking Households by Block Group*

Census Tract	*Block Group*	*Linguistically Isolated Households*
16	1	0%
16	2	0%
16	3	3%
16	4	0%
17.02	1	0%
17.02	2	0%
18.03	1	13%
18.03	2	28%
18.04	1	6%
18.04	2	9%
18.04	3	27%
19.01	1	0%
19.01	2	0%
19.01	3	7%
19.01	4	0%
103	1	0%
103	2	0%
103	3	15%

Source: American Community Survey 2006-2010, 5-year Average

An additional focus of EO 12898 is to solicit meaningful participation of the public in the project development process, with an emphasis on meaningful exchange with minority and low-income populations. Concerns and issues raised by community members during the scoping process were carefully considered in the development of the Preferred Action Alternative's elements and potential mitigation strategies. Detailed public outreach activities are described in Chapter 4: Coordination and Consultation. As the master plan is implemented for the FMC, DOS is committed to provide outreach to citizens as needed on temporary impacts resulting from construction activities, such as changes to traffic patterns.

3.12 CULTURAL RESOURCES

The National Historic Preservation Act of 1966 (NHPA) established a program to preserve historic properties throughout the country. Section 106 of the NHPA, as amended, requires that federal agencies review undertakings for their impact on significant historic resources. The term historic includes architectural, archeological, and landscape resources. A significant historic resource is one that is either listed or determined eligible for listing on the National Register of Historic Places (NRHP). Section 106 also provides an opportunity for the public and the Advisory Council on Historic Preservation (ACHP) to comment on undertakings. The appropriate State Historic Preservation Office (SHPO) advises and assists federal agencies in carrying out their Section 106 responsibilities.

The National Register of Historic Places is the federally maintained list of properties recognized for their significance in American history, architecture, archaeology, engineering and culture. The criteria for evaluating the eligibility of properties for inclusion on the National Register are established by the Secretary of the Interior. There are four criteria.

Criterion A – associated with events that have made a significant contribution to the broad patterns of our history; or

Criterion B – associated with the lives of significant persons in our past; or

Criterion C – embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or

Criterion D – has yielded or may be likely to yield information important in history or prehistory.

Parallel to the National Register are listings that are developed and maintained at the state and local level. The District of Columbia Historic Preservation Office (DC-HPO), which functions as the SHPO for the District of Columbia, maintains the District of Columbia Inventory of Historic Sites. A property can be listed on one or both the National Register and the District of Columbia Inventory of Historic Sites. Acceptance on one does not automatically result in acceptance on the other.

Both the National Register and the District of Columbia Inventory list individual properties as well as historic districts. When a historic district is nominated, the nomination form includes an evaluation of every structure within the district boundary and identifies each as either a contributing resource to the historic district or a non-contributing resource. The Section 106 process includes the evaluation of potential adverse effects on all individually eligible and contributing resources. Within a historic district, some contributing resources may also be considered as individually eligible for listing at either the federal or state level.

Prior to the initiation of the current Section 106 process, a determination of eligibility was made for a National Register Historic District encompassing the entire historic Walter Reed Army Medical Center campus. The period of significance for the eligible district is 1909 to 1956 and includes 27 contributing resources (buildings) of which 11 have been identified as individually eligible. There are also contributing landscape resources and structures.

3.12.1 Section 106 Process of the NHPA

The Section 106 Process for the WRAMC consists of two parts: the Section 106 Process and resultant Programmatic Agreement (PA) for the Army Base Realignment and Closure Commission (BRAC) undertaking, and the Section 106 Process and projected PA for the DOS FMC Master Plan undertaking.

A **Programmatic Agreement** is an agreement between parties establishing a program for compliance with Section 106 of the National Historic Preservation Act.

3.12.1.1 Base Realignment and Closure Commission (BRAC) undertaking

Prior to the initiation of the current study, the closure of the WRAMC under the 2005 BRAC made that undertaking subject to review under Section 106 of the NHPA. The Department of the Army Section 106 process was initiated in February 2010. An assessment was developed identifying the historic resources within the WRAMC and consulting parties were identified. This process included a series of public meetings between March and August 2010. A final assessment report was issued on November 3, 2011.

The outcome of the Army Section 106 process was a PA executed between the Army, the DC-HPO and the ACHP. The PA, signed in January 2013, includes a series of stipulations that take into account the effects of the Army undertaking on the identified historic properties. Following are the stipulations that relate to aboveground historic properties.

- ◊ Interim Property Maintenance. Avoid adverse effects to historic properties prior to transfer of parcels containing historic property by keeping the buildings weather-tight, ventilating the buildings, maintaining the interior environment between fifty-five (55) and eighty-five (85) degrees Fahrenheit, and providing physical security and fire protection.

- ◊ Nomination to the National Register of Historic Places. Submit an Application for (DC) Historic Landmark or Historic District Designation concurrently with a National Register nomination for the WRAMC Historic District.

- ◊ Photographic Documentation. Take between 70 and 100 large-format black-and-white general landscape views of the installation and submit them to the Library of Congress and the HPO.

- ◊ Interpretive Materials. Develop a self-guided walking tour with interpretive panels for portions of the WRAMC that would be accessible to the public after transfer from Army control.

- ◊ Existing Conditions Document. Perform existing conditions photography of each principal façade of each eligible building and select copies (floor plans, facades, roof plans, details of character defining features) of as-built drawings. A separate report shall be generated for each historic building and provided to the recipient of historic property at transfer.

- ◊ Environmental Remediation. In the event that remediation is required prior to transfer and if historic properties may be affected, the Army shall take actions necessary to assure protection of human health and the environment and when possible implement measures to avoid, minimize or mitigate adverse effects on historic properties.

Under the proposed action, ownership of the 43.5-acre FMC site would be transferred from the Army to DOS. When property transfer occurs, the Army PA and these stipulations would terminate. A new PA based on the proposed undertaking by DOS would be developed and could incorporate certain stipulations from the Army PA that are appropriate for the new undertaking.

3.12.1.2 FMC Master Plan undertaking

A request to initiate the Section 106 process for the proposed DOS undertaking was issued formally to the DC-HPO on June 22, 2012. Invitations to become consulting parties to the DOS Section 106 process were sent to the following parties (who were identified based on the list of Army Section 106 process consulting parties):

- ◊ District of Columbia Office of Planning – Historic Preservation Office

- ◊ The Advisory Council on Historic Preservation

- ◊ The National Capital Planning Commission

- ◊ The U.S. Commission of Fine Arts

- ◊ Advisory Neighborhood Commission 4A

- ◊ Advisory Neighborhood Commission 4B

- ◊ Brightwood Community Association
- ◊ The Committee of 100 on the Federal City
- ◊ The District of Columbia Office of the Deputy Mayor for Planning and Economic Development
- ◊ The District of Columbia Office of Planning
- ◊ The District of Columbia Preservation League
- ◊ The National Trust for Historic Preservation
- ◊ Shepherd Park Citizens Association
- ◊ The Walter Reed Society
- ◊ Ward 4 Council Member Muriel Bowser
- ◊ Washington City Administrator

Whereas many of the above parties have responded as willing participants in the scoping process, to date, the following have been identified as consulting parties to the Section 106 process:

- ◊ The District of Columbia Office of Planning- Historic Preservation Office
- ◊ The Advisory Council on Historic Preservation
- ◊ The National Capital Planning Commission
- ◊ The Committee of 100 on the Federal City
- ◊ The Alliance to Preserve The Civil War Defenses of Washington (APCWDW)

A public scoping meeting for the DEIS was held on July 19, 2012, and potential effects to cultural resources were identified as a public and agency concern. Public comments focused on keeping the chapel, having an open and accessible campus, maintaining the existing landscape buffer along 16th and Alaska, and addressing traffic impacts.

On January 22, 2013, a meeting was held with DOS, DC-HPO and the ACHP to review the status of the project, outline future public participation opportunities, and determine the form of agreement that would be developed to memorialize stipulations regarding effects to historic resources. Since the end-product of the undertaking would be a Master Plan used for the development and build-out of the FMC, the parties agreed that the most appropriate form of agreement to embody

mitigation measures would be a PA. DOS, with DC-HPO and ACHP, will prepare the PA for the undertaking and continue to work with and seek input from the other consulting parties.

A public meeting focused on the Section 106 process was held on June 18, 2013. The meeting outlined the findings regarding the assessment of historic resources, described the proposed action and presented a preliminary analysis of potential adverse effects of the undertaking on aboveground historic resources.

The Committee of 100 on the Federal City noted the following:

- ◊ It may be possible to reuse Buildings 40 and 54 as chanceries.
- ◊ It may be possible to retain and reuse the residential house(s).
- ◊ It strongly supports retaining the historic chapel.
- ◊ The PA should include a stipulation that any major alterations or new construction be reviewed by the DC Historic Preservation Board.
- ◊ The Battle of Fort Stevens was fought on and near the former WRAMC.
- ◊ Interpretive materials and signage should be provided to educate others on the history of the property from the Civil War to present day.
- ◊ A social history for the former WRAMC should be prepared to include the modern history beyond the 1956 period of significance.

The APCWDW noted the following:

- ◊ There are concerns about the preservation of open space within the FMC.
- ◊ The former WRAMC was part of the 1864 Battle of Fort Stevens. While the period of significance for the proposed historic district is 1909–1956, the site is linked to important historic activities prior to 1909.
- ◊ Interpretive materials and signage should be provided to educate others on the history of the property, from the Civil War to present day. The signage should be consistent with the signs the Army would provide for the portion of the former WRAMC redeveloped by the DC-LRA.

3.12.2 Historic Resources

Regulations for implementation of the NHPA, as amended, require definition of an area of potential effects (APE) for federal undertakings affecting historic resources. Per 36 CFR Part

800, Protection of Historic Properties, the APE is defined as "the geographic area or areas within which an undertaking may directly or indirectly cause changes in the character or use of historic properties, if such properties exist. The APE is influenced by the scale and nature of the undertaking and may be different for different kinds of effects caused by the undertaking" (36 CFR 800.16(d)).

The APE for the aboveground historic resources is comprised of the entire WRAMC facility and extends approximately 1,250 feet (four city blocks) to the north and west (exhibit 3.44). It extends into Rock Creek Park along 16th Street, is bounded to the north by Hemlock Street, until its intersection with 13th Street. East of 13th Street it is enclosed by Fern Street to Georgia Avenue in the east and Aspen Street to the south. The latter boundaries (to the east and south) are the boundaries of the former WRAMC.

3.12.2.1 WRAMC Historic District

The former WRAMC (also known as, and also referred to as, "the post") has been determined as eligible for listing on the NRHP as a historic district (exhibit 3.45). The period of significance for the historic district starts in 1909, the opening date of the Main Hospital Building, and ends in 1956. The end date relates to changes within the military medical structure that resulted in similar or parallel installations being created elsewhere in the United States. The boundary of the historic district includes the entire historic campus of the WRAMC, from 16th Street to Georgia Avenue and from Aspen Street to Fern Street.

All structures that existed or were constructed within the period of significance are considered contributing resources to the WRAMC historic district. In addition, several of the contributing resources (structures) to the district have been identified as individually eligible for listing, as they embody the distinctive characteristics of a type or period.

History of the WRAMC

Since the WRAMC opened in May 1909, rapid development has occurred on the campus and in the surrounding neighborhoods. In contrast to the current site density, the setting was rural when the campus first opened, but rapidly began to urbanize under the demands placed on the facility and the District of Columbia, by World Wars I and II.

Insurance maps from the first decade of the 20th century show the area east of Rock Creek Park in the northern portion of the District as open with a single paved road, Georgia (or Brightwood) Avenue, running north-south and the small "village" of Takoma Park located further east near Eastern Avenue. The land located between Georgia Avenue and Rock Creek Park was almost completely undeveloped with the exception of several residential structures. While the future street grid is shown on the maps, the few roads that existed were unpaved and many of these roads bisected parcels of privately owned land.

Prior to the WRAMC development of the property, J. D. Cameron was identified as the owner of a land parcel that extended from Georgia Avenue on the east to 16th Street on the west, with

Exhibit 3.44 - *Area of Potential Effects for Historic Resources*

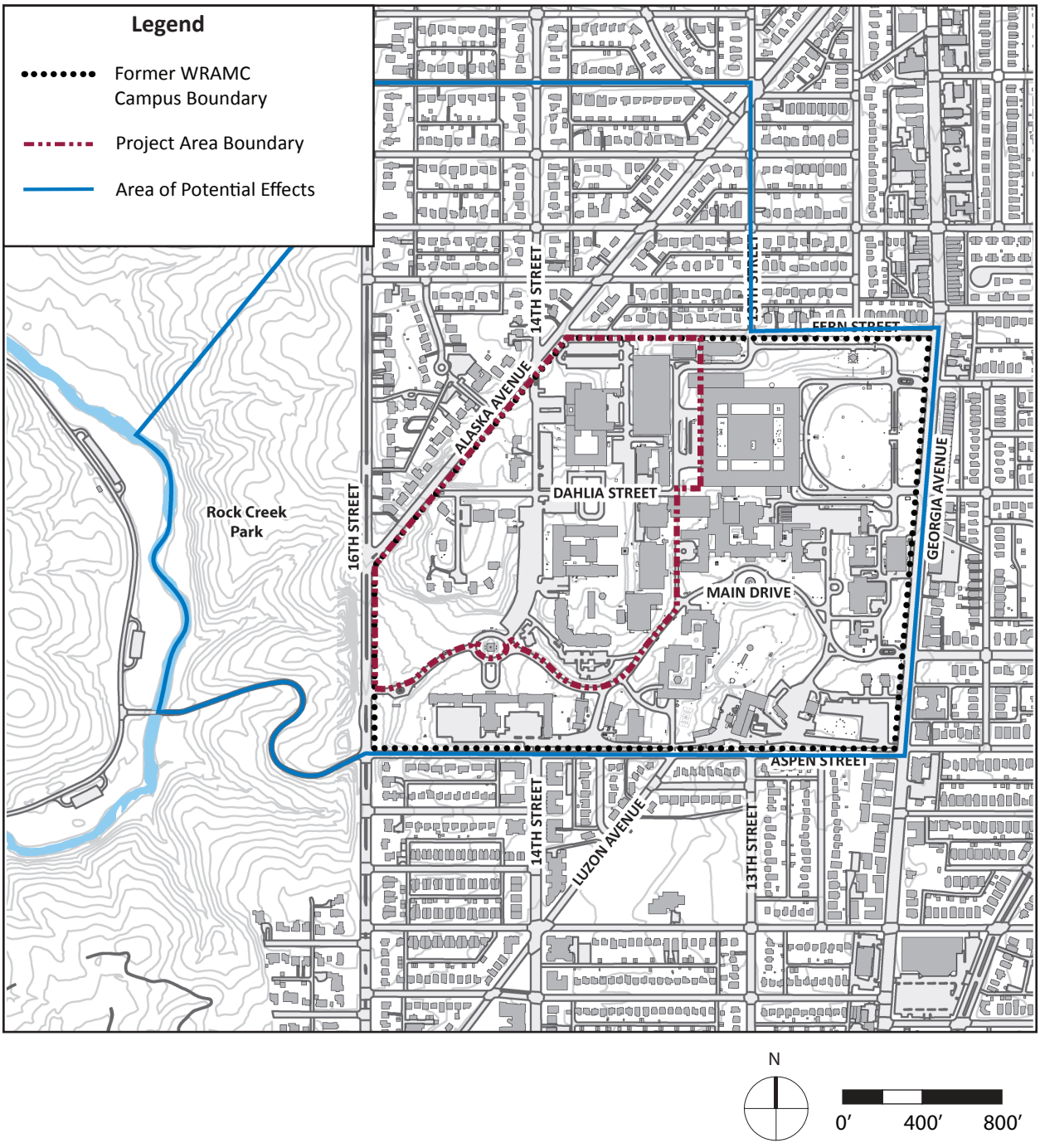
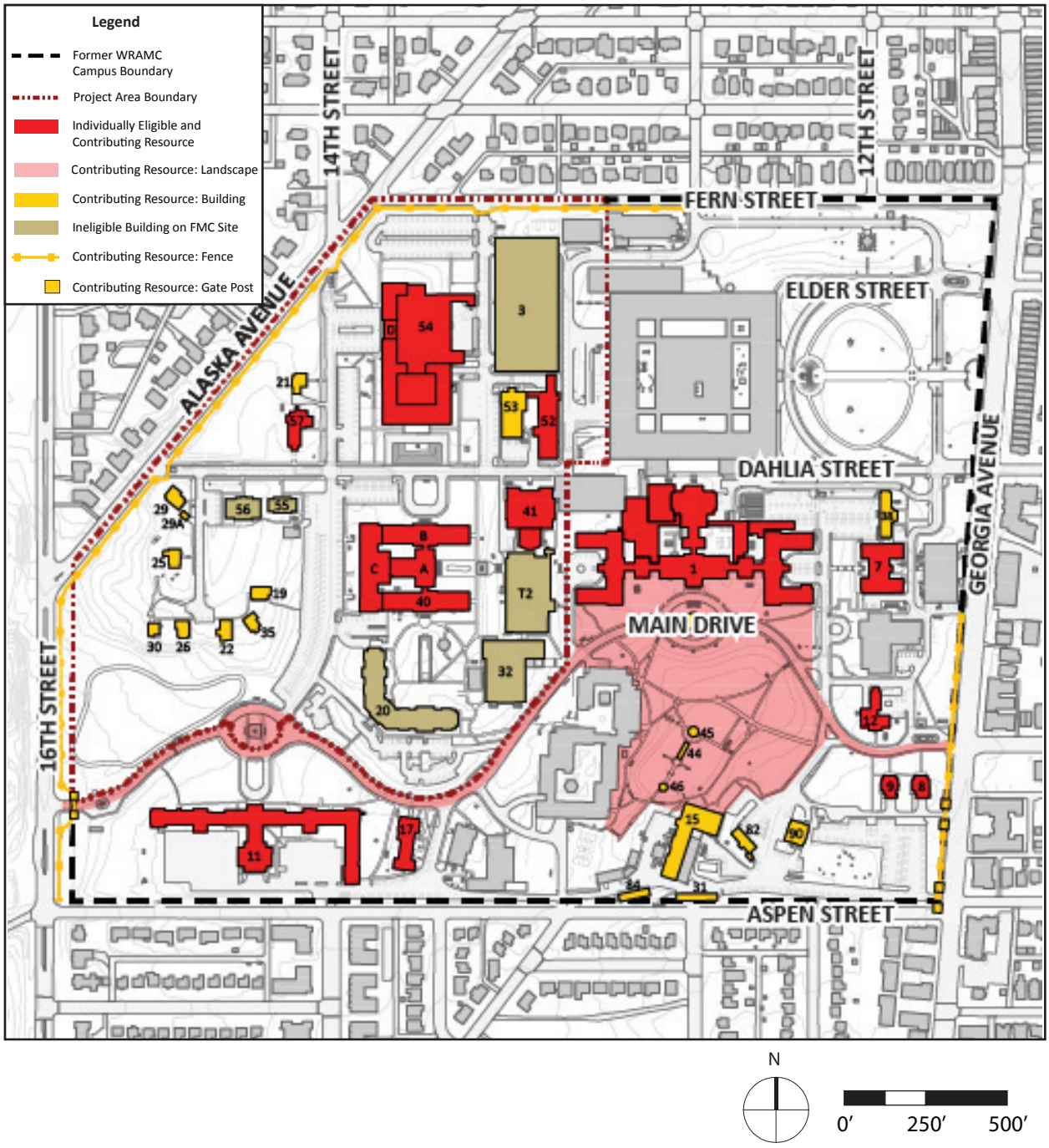


Exhibit 3.45 - *Historic Resources*



a boundary south of what became Aspen Street and an angled northern boundary. By 1907, the eastern portion of Cameron's property had been divided off and labeled "United States". This roughly trapezoidal shaped property became the site of the Walter Reed General Hospital. The initial campus developed rapidly, with Building 1 (Main Hospital) opening in 1909. Within two years there were nine more brick buildings and a few wood frame structures.

The period of U.S. engagement in World War I, 1917–1918, saw an explosion of wood framed buildings constructed at the Hospital. The western property boundary was pushed to 16th Street. While the northern boundary of the property was still shown as an angled line, with the city street grid and sub-divided properties to the north, hospital buildings were already constructed north of this boundary. The buildings corresponded to the street grid, particularly Dahlia Street and 13th Street, but the capacity needs of the Hospital were not satisfied within the existing boundary and further expansion of the property was required.

Maps from the inter-war years represent the boundary of the site as it exists today, with the northern edge extended to Alaska and Fern Avenues. Many of the World War I era wood frame structures were removed during this period, and new brick buildings constructed. The organization of the campus plan assumed a more picturesque arrangement south of Building 1, focused on the curvilinear "Main Road". However, north of Building 1, Dahlia Street established a hard edge beyond which the city street grid was retained. Significant new buildings constructed during this period include Building 40, the Walter Reed Army Institute of Research (1923 and 1932), Building 41, the Red Cross Building (1927 and 1944) and Building 57, the Memorial Chapel (1931).

World War II initiated a second period of increased construction. The most intense development occurred in the northeast corner of the campus, north of Dahlia Street and east of 14th Street. Tightly spaced hospital wards and barracks filled the site and began to displace the historic street grid. While Dogwood Street and a portion of 13th Street survived, other streets are interrupted and become internal circulation pathways. The intensity of the construction activity on the eastern portion of the site is counterbalanced by the more open, smaller scale development to the west. Houses used as Officers' Quarters were located on Dogwood, 14th and 15th Streets. These houses were originally constructed outside the WRAMC boundary and annexed as the property expanded to the west and north. Overall, the separation of the campus from the city street grid is firmly established.

The most significant construction at the WRAMC between World War II and the end of the period of significance in 1956 was Building 54, the Armed Forces Institute of Pathology (AFIP), constructed in 1954. While Building 54 was larger in scale and bulkier in mass than older campus buildings, an effort was made to integrate it with the existing street grid. It was situated facing 14th Street with Dahlia Street to its south. The site for Building 54 was already occupied by a number of other structures. Five of these were residential structures which were relocated to the south and west of the Chapel.

The WRAMC historic district is clearly delineated by a perimeter fence and gates that identify the boundary of the military installation. While there are a wide range of building types and architectural styles on the campus, the contributing resources are primarily Colonial Revival and Georgian Revival style constructed of red brick with limestone detailing. The development and expansion of the campus over time was not based on a single master plan; instead, the location of buildings and their inter-relationship resulted in a campus environment that uses open space along with vehicular and pedestrian pathways as organizing elements. The growth and ongoing redevelopment of the campus resulted in key resources acting as focal points and contributing resources providing the connective tissue. The property functions as a visually cohesive campus that represents the full history of development at the WRAMC.

Historic Significance of WRAMC

The WRAMC Historic District is eligible for the NRHP due to its significance in the field of military medicine (Criterion A) and its architecture and design (Criterion C). The Walter Reed General Hospital, one of the oldest general military hospitals in the country, has played a key role in the treatment and rehabilitation of America's soldiers in all major U.S. conflicts since World War I. The Army Medical School has been responsible for training Army physicians in military medicine and public health and advancing military medical care through research. The AFIP is internationally renowned for its research on pathology and the study of disease.

The core institutions that became the WRAMC date to the 19th century. In 1862, Surgeon General William A. Hammond first conceived of the need for a military medical reservation in the District of Columbia, including a permanent hospital, a medical school to train the Army's surgeons, and a medical museum. His concerns were fueled by the unprecedented needs posed by the Civil War. While Hammond's overall plan was not approved, the Army Medical Museum and Library was established in 1862 and located downtown. The Museum was established to reduce the loss of life in warfare through the scientific study of medical specimens.

The second component of what became the WRAMC was the Army Medical School. In 1893, the War Department issued an order calling for the establishment of an Army Medical School in the District of Columbia. The mission of the school was to provide specialized training for newly commissioned doctors prior to their entrance into the medical corps. It was initially located in the same facility downtown as the Museum and Library.

The final WRAMC component established was the General Hospital. In 1898 the post hospital at the Washington Barracks (present-day Fort McNair in southwest Washington, DC) was designated as the Army General Hospital. The Commander of the General Hospital from 1898 to 1907 was Colonel William C. Borden, who became the driving force behind the consolidation of the hospital and training facilities at the future WRAMC. While Colonel Borden proposed a fully consolidated campus including the Hospital, Medical School and Museum, the initial appropriations limited the campus to just the hospital in 1909. The rapid development of WRAMC over the next fifty years resulted in a campus that fulfilled and eventually surpassed Borden's

original vision, incorporating both medical care and research facilities that were at the forefront of 20th century advances in the medical field.

WRAMC Historic District Individually Eligible Resources

Building 1 - Main Hospital. The oldest section of the Main Hospital is in the Georgian Revival style and dates to 1909. It has been expanded with additions on all but the south-facing façade. The additions were made to expand the patient, medical, and administrative capacities of the building. Building 1 is eligible under Criterion A for the contributions to the military and medicine and most of the additions, as well as the original structure, are eligible under Criterion C for their architecture and design within the Georgian Revival architectural style and period.

Building 7 - Barracks. Constructed in 1910 as men's barracks, this building is part of the original core of the campus along with the Main Hospital. This building is eligible under Criterion A as part of the development of the WRAMC and under Criterion C as an example of Georgian Revival design which contributes to the overall campus and the historic district.

Building 8 - Officer Quarters 1. Constructed in 1910 as officer housing, this building is part of the original core of the campus along with the Main Hospital. This building is eligible under Criterion A as part of the development of the WRAMC and under Criterion C as an example of Colonial Revival design which contributes to the overall campus and the historic district.

Building 9 - Officer Quarters 2. Constructed in 1910 as officer housing, this building is part of the original core of the campus along with the Main Hospital. This building is eligible under Criterion A as part of the development of the WRAMC and under Criterion C as an example of Colonial Revival design which contributes to the overall campus and the historic district.

Building 11 - Delano Hall. The original portion of Delano Hall is the east wing, dating to 1929. It was expanded with the center section in 1931 and the west wing in 1933. Built to house nurses, the building is dedicated to Jane A. Delano, Superintendent of the Army Nurse's Corps and leader in Red Cross nursing. The building is significant under Criterion A as representative of installation support functions and nursing quarters. Building 11 is also eligible under Criterion C for its architecture and design within the Georgian Revival architectural style and period.

Building 12 - Army Nurse Corps Home. Constructed in 1911, Building 12 was the first dedicated housing on post for nurses. This building is eligible under Criterion A as part of the development of the WRAMC and Criterion C as an example of Georgian Revival design which contributes to the overall campus and the historic district.

Building 17 - Doss Memorial Hall. Doss Memorial Hall was constructed in 1920 and added to in 1944. Originally the Catholic Service Club, later uses include the Services Club, PX Cafeteria, and Hostess House. It most recently served as a guest house for wounded soldiers and their families and also contained the Army Community Services Center. Building 17 is eligible under

Criterion A as it is significant in the area of military community service function. It is eligible under Criterion C as an example of Colonial Revival Style.

Building 40 - Walter Reed Army Institute of Research (WRAIR). Building 40 consists of three components constructed under different building campaigns. The south wing was constructed in 1923, the center and north wings in 1932 and the west wing in 1962. Originally constructed to house the Army Medical School, it was designated as WRAIR in 1955. Many of the most important medical advances associated with the WRAMC were researched in this building. The building is eligible under Criterion A for its critical role in the history of the WRAMC and Criterion C as an excellent example of classical revival architecture that contributes to the coherence of the campus and the historic district. In addition to the exterior of the building, some interior spaces including the lobbies, the auditorium and the public corridors have been identified as character defining features of the building.

Building 41 - Red Cross Building. The first section of Building 41 was constructed in 1927 with the addition of a solarium on the south side in 1944. Building 41 was the location for many social and recreational functions for the patients at WRAMC. Many nationally famous entertainers performed on the stage in the main hall. Building 41 is eligible under Criterion A due to its association with the development of the post and Criterion C as a significant example of the Colonial Revival style which contributes to the overall campus and the historic district.

Building 52 - Hospital Ward. This hospital ward, constructed in 1930, is the last extant example of a building type that was once plentiful at the WRAMC as well as many other hospitals constructed in the late 19th and early 20th centuries. Long and thin in plan with arcaded verandas on three sides, these buildings provided both isolation for the wards as well as abundant air and light. The architecture embodies the advancing scientific concepts of the medical profession. This structure is eligible under Criterion A as the surviving example of a building type that was critical to the development history of the campus and Criterion C as an example of Georgian Revival design which contributes to the overall campus and the historic district.

Building 54 - Armed Forces Institute of Pathology (AFIP). The main block of the AFIP was constructed in 1955 with an addition to the south added outside the period of significance in 1972. An excellent example of Cold War era design, the facility housed research activities that were at the cutting edge of the period. This building expands the architectural language of the campus to include the "modern" vocabulary. The building is eligible under Criterion A as the first structure built by the unified Armed Forces, and an internationally important facility for research into the causes, processes and effects of disease. It is eligible under Criterion C as an example of "Brutalist" concrete construction in an institutional setting and for the board-formed patterning of the concrete facades.

Building 57 - Memorial Chapel. Memorial Chapel was constructed in 1931 with funding raised by the Red Cross Gray Ladies. This is the only structure that was built on the campus devoted solely to religious use. In addition to being constructed within the period of significance the building is eligible under Criterion A as a critical part of the development of the campus and for its connection to the larger community. It is also eligible under Criterion C as a significant example of English

Country Gothic style design. In addition to the exterior of the building there are interior elements that have been identified as character defining features including the stained glass windows.

WRAMC Historic District Contributing Resources

Perimeter Fence. The former WRAMC is organized similarly to most military installations. The perimeter boundary of the post is identified by a fence or barrier with entry points signified by gates. The perimeter fence at the WRAMC extends around the entire installation and has been modified over time to accommodate new programmatic needs and technologies. Two lengths of the perimeter fence have been identified as a contributing element as part of the cultural landscape. The first consists of the fence from the southwest corner of the site, at the intersection of 16th Street and Aspen Street, north along 16th Street, northeast on Alaska Avenue between 16th Street and Fern Street and east on Fern Street to the 13th Street gate. The second starts at the southeast corner of the site at the intersection of Georgia Avenue and Aspen Street and extends north to a point between Butternut and Dahlia Streets. Fence posts at the 16th Street entry date to 1924 and those at the Georgia Avenue and Aspen Street entries date to 1942. Iron fencing around the facility dates to c. 1940–1942. The perimeter fence is significant under Criterion A for its association with the development of the WRAMC and Criterion C for its design as part of the architectural character of the overall campus.

Main Drive. The Main Drive was created in three episodes, all within the period of significance. The portion from the Butternut Street entry to Building 1 was part of the original site development in 1909. The portion of Main Drive from Building 1 to Building 17 was constructed during the WWI expansion in 1918, while the remaining portion that extended it to the 16th Street entry, including the circle in front of Building 17, was added in 1933. The Main Drive is significant under Criterion A for association with the WRAMC and its integration of landscape, views, buildings, vehicular and pedestrian circulation, and landscape features within the installation's overall Georgian Revival-style. The drive contributes to the historic district as part of the cultural landscape.

Landscape Elements. Structure 60, the ellipse in front of Building 1 that encircles the Hoff Memorial Fountain, is a contributing element to the historic district. The ellipse was part of the initial 1909 construction with the fountain, pavements, and urns added in 1935. The extant fountain is a c. 1994 replica that is not a contributing element, falling outside the period of significance. The ellipse, urns, steps, and landscaping are eligible under Criterion C as contributing elements to the district as part of the cultural landscape.

The landscape and elements south of Building 1 and the view shed within the area are also contributing elements as part of the cultural landscape. The elements include Structure 44/ Pergola, Structure 45/Bandstand, Structure 46/Rose Garden Fountain, walkways, cherry trees and the sunken garden, stairs leading down to the area, and garden objects that date from 1920 to 1956. The area and elements have been used for military and medical ceremonies, as well as for recreational and therapeutic functions.

Buildings 19, 21, 22, 25, 26, 29, 29A, 30 and 35 - Officers Quarters. These eight residential structures (and one garage, 29A) located on the west side of the campus were constructed circa 1915–1919. They were constructed outside the WRAMC but were annexed as the post expanded to the north and west. Three of the structures remain on their original sites (21, 25 and 29). The other five structures were originally located east of 14th Street between Dahlia and Fern Streets. They were relocated to their current sites in 1954 as Building 54 was being constructed. These buildings are contributing elements to the historic district and eligible under Criterion A as representative of the development of the WRAMC campus.

Building 15 – Central Heating Plant. The Central Heating Plant was constructed in three primary phases: 1918, 1919 and 1977. The structure is significant under Criteria A as representative of the development of the WRAMC campus. It is a contributing building to the proposed WRAMC Historic District.

Building 31 – Oil Storage Warehouse. The Oil Storage Warehouse was constructed in three primary phases: 1921, 1941 and 1971. The structure is significant under Criteria A as representative of the development of the WRAMC campus. It is a contributing building to the proposed WRAMC Historic District.

Building 38 – Guard House. Building 38 was originally constructed as a guard house and modified to accommodate other programmatic uses over time. The first section was constructed in 1922 with additions in 1928, 1944, 1992 and 2004. The structure is significant under Criteria A as representative of the development of the WRAMC campus. It is a contributing building to the proposed WRAMC Historic District.

Building 53 – Post Theater. The Post Theater was constructed in 1950 and is therefore considered a contributing building and is eligible under Criterion A as representative of the development of the WRAMC campus.

Building 82 – PX Gas Station. Building 82 was originally the PX Gas Station. It was constructed in 1940 with a two-bay addition in 1958. The structure is significant under Criteria A as representative of the development of the WRAMC campus. It is a contributing building to the proposed WRAMC Historic District.

Building 84 – Equipment Shed. The equipment shed was constructed in 1942. The structure is significant under Criteria A as representative of the development of the WRAMC campus. It is a contributing building to the proposed WRAMC Historic District.

Building 90 – Post Fire Station. The post Fire Station was constructed in 1946 with an addition in 1995. The structure is significant under Criteria A as representative of the development of the WRAMC campus. It is a contributing building to the proposed WRAMC Historic District.

3.12.2.2 Rock Creek Park

A portion of Rock Creek Park is located within the APE immediately to the west of the WRAMC. Rock Creek Park was established in 1890 as one of the first federal parks. The Park is combined with the Potomac Parkway as a single historic district resource, encompassing the rim and gorge of Rock Creek from the District of Columbia boundary to the Potomac River, including a short segment along the River. The property comprises approximately 180 acres, and varies in width from a few feet at the southern end to more than 500 feet near the northern end. The park includes a trail network through the environs, much of which follows historic bridle trails. It also incorporates industrial structures, with the earliest dating to 1828. The Rock Creek and Potomac Parkway, which runs north-south through the park, was authorized for construction in 1913. Construction was completed by 1936. The Rock Creek and Potomac Parkway Historic District is significant under Criterion A for community planning and development as well as recreation and Criterion C for the landscape architecture and engineering. This historic resource, with a period of significance between 1828 and 1951, was listed on the NRHP in 2005.

3.12.3 Effects to Historic Resources

DOS has documented the potential effects of the Preferred Action Alternative and is working to develop appropriate mitigation strategies. Meetings are being held with the DOS, DC-HPO, the consulting parties, and the ACHP to identify mitigation strategies and incorporate these into a PA.

DOS would market individually eligible Buildings 40, 41 and 52 for potential reuse onsite as chanceries. Building 57 would be retained with a reuse plan developed by DOS.

The No Action Alternative would not effect historic resources. Over time, the No Action alternative would result in the continued deterioration of the historic resources.

Rock Creek Park

The Preferred Action Alternative would have no effect on Rock Creek Park. The Preferred Action Alternative retains the configuration of the WRAMC at the western boundary along 16th Street adjacent to Rock Creek Park. The existing historic perimeter fence and gate would be retained and the boundary reinforced with a landscaped buffer along 16th Street and Alaska Avenue.

WRAMC Historic District

Implementation of the Preferred Action Alternative would result in an adverse effect to the WRAMC Historic District. The integrity of an historic district is based on the setting, design and association of the component parts. These are linked to the identifiable boundary, the arterial system within the campus and the surviving resources constructed between 1909 and 1956.

The boundary and arterial system would be retained and reinforced as part of the proposed undertaking. The Preferred Action Alternative would retain the primary vehicular arteries of Dahlia Street (east-west) and 14th Street (north-south) and reinforce them through the proposed

lot subdivisions. A secondary vehicular artery, 13th Place, may be shifted to the east but would continue to serve as a connector between Fern Street and Dahlia Street. All non-contributing structures within the FMC project boundary would be removed to provide lots for new construction.

Both individually eligible (Building 54) and contributing resources (Building 53 and the residential structures) would be removed. One individually eligible resource (Building 57) would be retained and a reuse plan would be developed for the building. Other individually eligible resources (Buildings 40, 41 and 52) may be retained or may be removed in whole or in part. The range of potential effects on these three buildings is addressed below. The loss of both contributing and individually eligible resources would have an adverse effect on the integrity of the historic district's setting, design and association of the component elements.

WRAMC Historic District Individually Eligible Resources

The Preferred Action Alternative would have no adverse effect on individually eligible Buildings 1, 7, 8, 9, 11, 12, and 17. These resources are located outside the project area boundary of the proposed FMC and would not be physically altered by the proposed action. The Preferred Action Alternative would result in the loss of some identified historic buildings within the project area boundary of the proposed FMC. Removal of the historic buildings would reduce the visual integrity of the campus setting for the remaining individually eligible buildings.

The Preferred Action Alternative may have an adverse effect on individually eligible Buildings 40, 41, and 52. The Preferred Action Alternative incorporates the potential reuse of all or a portion of Buildings 40, 41, and 52. Reuse of these buildings would be contingent upon identifying a foreign mission interested in rehabilitation and reuse to accommodate an acceptable program. If the entire building or a portion of the building is reused, modifications would be required to the building to comply with code, incorporate programmatic needs and provide necessary support spaces. These modifications could have an adverse effect on character defining features. Removal or replacement of features could have an adverse effect on the materials and workmanship of the resource.

Full or partial removal of Buildings 40, 41 and 52 would result in an adverse effect by altering or eliminating the buildings' existing historic location, setting, design, materials, workmanship, feeling and association with other historic district buildings. In the case of Building 52, the setting has already been modified from its original intent as one of a repetitive building type linked to the Main Hospital.

The Preferred Action Alternative provides for the reuse of Building 57/Memorial Chapel, but may have an adverse effect on the resource. The programmatic use of the facility has not been finalized. Prior to reuse, modifications would be required to comply with building code, incorporate programmatic needs and provide necessary support spaces (toilet rooms, kitchenette, etc.). These modifications could have an adverse effect on character defining features. Removal or replacement of features could have an adverse effect on the materials and workmanship of the resource.

The Preferred Action Alternative would result in an adverse effect to Building 54 AFIP. Implementation of the Preferred Action Alternative would result in the removal of Building 54,

which would eliminate the building's historic location, setting, design, materials, workmanship, feeling and association with other historic district buildings.

WRAMC Historic District Contributing Resources

The Preferred Action Alternative would have no adverse effect on Buildings 15, 31, 38, 82, 84 and 90. These resources are located outside the project area boundary of the proposed FMC site and would not be physically altered by the proposed action.

The Preferred Action Alternative would result in the loss of some identified historic buildings within the project area boundary of the proposed FMC. Removal of the historic buildings would reduce the visual integrity of the campus setting for the remaining contributing resources.

The Preferred Action Alternative would result in an adverse effect to Buildings 19, 21, 22, 25, 26, 29, 29A, 30 and 35/Officers Quarters by removing or relocating the buildings. Five of the buildings (19, 22, 26, 30 and 35) are not on their original sites, indicating a history of these residential scale buildings being relocated to accommodate new development on the campus. Reuse of the buildings outside the boundary of the proposed FMC may be pursued. Removal or relocation would adversely affect the association of these buildings to the campus.

The Preferred Action Alternative would result in an adverse effect to Building 53/Post Theater by removing the building. Removal would adversely affect the association of the building to the campus.

The Preferred Action Alternative may result in an adverse effect to the perimeter fence. The Preferred Action Alternative retains the perimeter fence on 16th Street, Alaska Avenue and Fern Street within the project area boundary of the proposed FMC. Existing gates and gate posts at Main Drive (north side of the gate), Dahlia Street and 14th Street would remain in the their current locations. The Preferred Action Alternative and one variation would shift 13th Place to the east, effecting the existing gate and fence at Fern Street. The gate and fence would need to be modified and reconfigured at this location, possibly altering the integrity of the location, setting and/or design of the fence as it relates to the overall campus plan.

If 13th Place is moved to the east under the Preferred Action Alternative, DOS would document the existing fence configuration prior to modifications, and develop a design for the reconfigured fence and entrance that is sympathetic to the historic design.

The Preferred Action Alternative would have no adverse effect on Main Drive. The Preferred Action Alternative includes curb cuts to the northern edge of Main Drive for access to new construction. The configuration and detailing of the north side of Main Drive would not be changed.

The Preferred Action Alternative would have no adverse effects on the landscape elements to the south of Building 1. These elements are not directly adjacent to the proposed undertaking and would not be modified. The view shed from Building 1 is primarily looking south, away from the proposed FMC.

Mitigation strategies would be fully developed and documented through the Section 106 process, which is planned to result in the execution of a PA. Mitigation strategies for historic buildings being retained would include:

- ◊ Detailed listing and documentation of character defining features (exterior and interior)
- ◊ Design guidelines for acceptable modifications
- ◊ Design review of all proposed modifications

Mitigation strategies for historic buildings being removed would include:

- ◊ Documentation of the building prior to partial or total removal including historic research, drawings and photographs in accordance with EO 11593.

3.12.4 Archaeological Resources

The APE for archaeological resources is comprised of the 43.5 acres to be transferred to DOS at the northwest corner of the WRAMC facility. It is bound to the west by 16th Street, to the northwest by Alaska Avenue, to the north by Fern Street, to the east by Building 2/Heaton Pavilion and Building 1/ Main Hospital, and to the south by Main Drive. The latter two boundaries (to the east and south) are within the former WRAMC, the former three boundaries (west to north) mark the limits of WRAMC.

A Phase 1A archaeological investigation has been initiated. To date, secondary source material has been reviewed to develop a plan for subsurface inspection of open spaces to assess the level of disturbance to the natural and cultural stratigraphy and determine the presence of or likelihood for paleosols that could contain buried prehistoric archaeological deposits. The goal of the Phase IA investigation is to assess the potential for the property to contain archaeological resources eligible for listing on the NRHP.

The intersection of north-south running 14th Street and east-west running Dahlia Street serves to divide the APE into quadrants. Research and observations to date suggest that the eastern quadrants are largely disturbed, but undeveloped areas could still contain intact archaeological deposits.

The northwest quadrant contains only two buildings, Building 21 Officers Quarters #7 and Building 57/the Memorial Chapel. The area between the rear of the buildings, Dahlia Street, and Alaska Avenue has been identified as potentially containing paleosols, or buried soil strata which has the potential to contain evidence for prehistoric human activity. Approximately 75 percent of the southwest quadrant is considered to have the potential for containing paleosols.

Seven known archaeological sites with prehistoric components are mapped within approximately 2,500 feet of the APE, all within Rock Creek Park. Due to these factors, undisturbed areas should be considered to have a high probability for prehistoric and later archaeological deposits. The Phase IA investigation will determine the extent of area with archaeological potential within the property.

While there was activity throughout the period of the Civil War across the District of Columbia region, there was only one engagement of Union and Confederate forces that took place within the boundary of the District. On July 11–12, 1864, the "Battle of Fort Stevens" occurred over an area that includes the WRAMC (exhibit 3.46). Fort Stevens is located approximately 3,500 feet south-southeast of the site. This battle is significant for its location within the national capitol, the direct involvement of the President and that both Union and Confederate soldiers were killed and laid to rest in the vicinity of the battle.

Development and modifications at the WRAMC and in the surrounding neighborhood have significantly changed the appearance of the area from the time of the Battle of Fort Stevens. The topography of the WRAMC has been systematically modified over the last century as buildings, roadways and other features were constructed, moved and demolished. The creeks have disappeared with the line of Cameron Creek becoming the location of the primary storm drainage line running through the site, known as the "Luzon Tunnel."

While development has altered the site of the battle, there have been artifacts recovered from the WRAMC site in the intervening years. While the focal point of the battle was along the axis of Seventh Street Turnpike (Georgia Avenue), outside the APE, troops were located over a much broader front and battle activity most likely occurred across the entire property that became the WRAMC with the heaviest concentration of activity occurring south of the July 12th Confederate picket line (Dahlia Street).

The No Action Alternative would not affect archaeological resources.

The Preferred Action Alternative has the potential to effect archaeological resources present in areas of ground disturbance. This would include building foundations, buried utilities, and other infrastructure that is placed within intact sediments. Should archaeological investigations not be concluded prior to the execution of the PA for the project, stipulations would be included in that document for the treatment of archaeological resources within the APE.

3.12.5 Traditional Cultural Properties

No known traditional cultural properties exist in the study area.

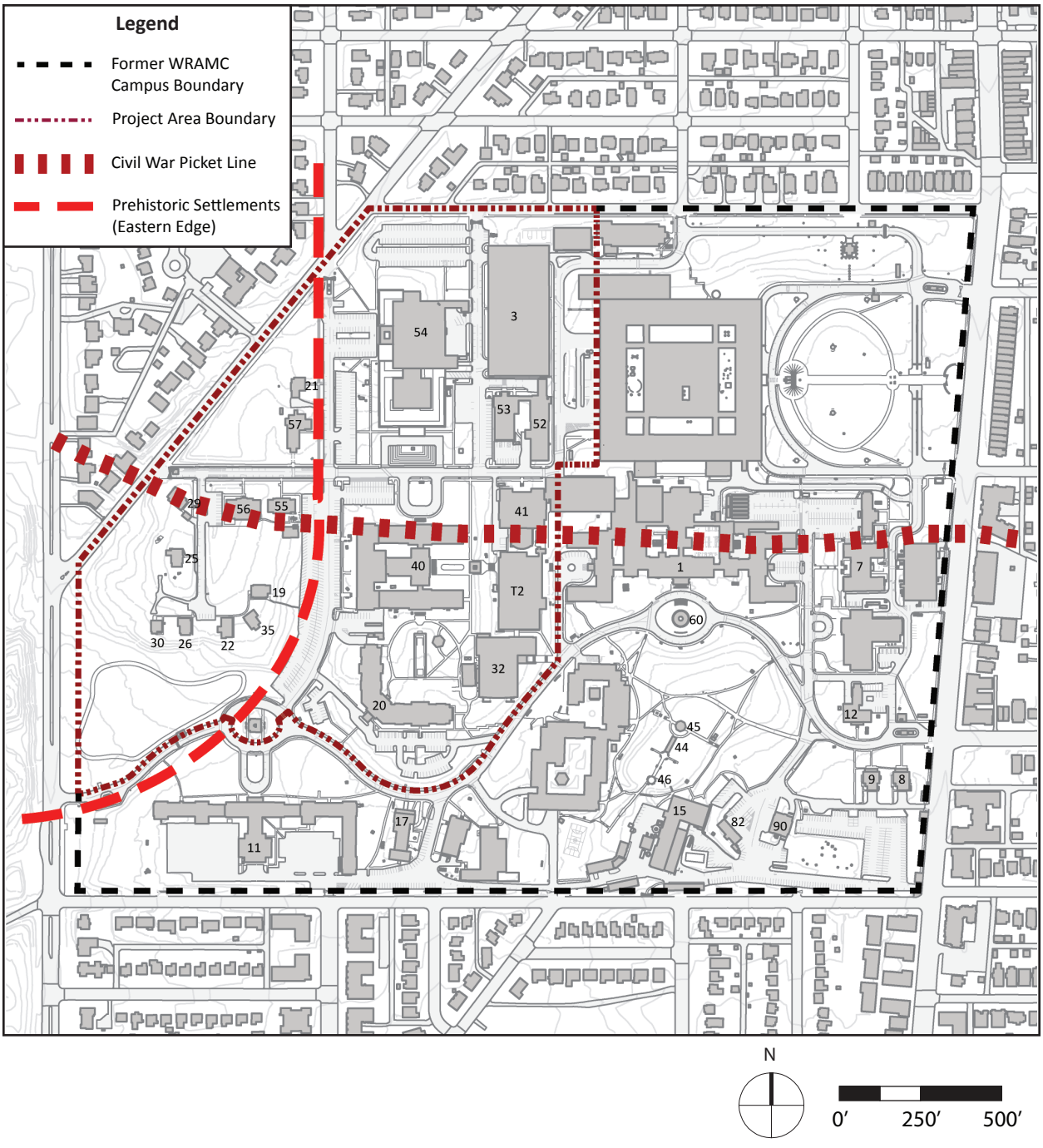
The No Action and the Preferred Action Alternatives would not affect traditional cultural properties.

3.13 PETROLEUM TANKS AND HAZARDOUS SUBSTANCES

The primary regulations that apply to petroleum and other potentially hazardous substances in the study area are:

- **The Resource Conservation and Recovery Act (RCRA)** addresses the control of hazardous waste from "cradle-to-grave", including the generation, transportation, treatment, storage, and disposal of hazardous waste. RCRA establishes the framework

Exhibit 3.46 - *Civil War Picket Line and Prehistoric Settlements in the Former WRAMC*



for the management of non-hazardous solid wastes. The 1986 amendments to RCRA established requirements concerning environmental issues caused by underground tanks storing petroleum and other hazardous substances.

◊ **The Toxic Substances Control Act of 1976** addresses the use and disposal of specific chemicals, including polychlorinated biphenyls (PCBs) (40 CFR Part 761), asbestos (40 CFR Part 761), and lead-based paint (40 CFR Part 745).

3.13.1 Petroleum Storage Tanks and Electrical Generators

The EPA and the District of Columbia have regulations pertaining to underground storage tanks (UST):

◊ 40 CFR Part 280: Technical Standards and Corrective Action Requirements for Owners and Operators of Underground Storage Tanks.

◊ The District of Columbia Municipal Regulation Title 20, Chapters 55–70

According to the Army, storage tanks have been removed from the site of the former WRAMC (U.S. Army Garrison..., 2006 and 2010; Craig, 2013) (exhibit 3.47).

Exhibit 3.47 - *Summary of Former Storage Tanks*

Tank Identifier	*Type (AST/UST)*	*Tank Capacity (Gallons)*	*Product Stored*	*Removed*	*Location*
MP-03	AST	275	Diesel	NA	West of Building 2
MP-4	UST	2,000	Diesel	Jun-98	Building T-2
MP-5	UST	10,000	Diesel	May-97	West of Building 2
MP-05	AST	275	Diesel	NA	West of Building 2
MP-6	UST	10,000	Diesel	May-97	West of Building 2
MP-06	AST	275	Diesel	NA	West of Building 2
MP-7	UST	2,000	Diesel	May-97	East of Building 54
MP-07	AST	275	Diesel	NA	West of Building 2
MP-8	UST	6,000	Diesel	May-97	West of Building 54
MP-08	AST	275	Diesel	NA	West of Building 2
MP-9	UST	3,000	Diesel	May-97	West of Building 41
MP-13	UST	1,500	Diesel	1995	East of Building 41
MP-18	AST	750	Diesel	NA	West of Building 2
MP-28	UST	20,000	Diesel	Sept-2013	West of Building 2
MP-31	UST	3,000	Diesel	NA	East of Building T-2
MP-32	UST	1,000	Diesel	NA	West of Building 32
None	AST	100	Diesel	NA	West of Building 2

Source: DOA, 2006
Notes: *AST: Aboveground Storage Tank, UST: Underground Storage Tank*

There were seven storage tanks remaining on the site of the former WRAMC (exhibit 3.48) (U.S. Army Garrison WRAMC, 2006, 2010, 2013; Craig, 2013). The tanks have secondary containment and are monitored by a 24-hour service for leaks (Fromal and Pierce, pers. comm., 2012):

- ◊ MP-17 is a 70-gallon capacity aboveground storage tank (AST) under the emergency diesel generator for Building 32.
- ◊ MP-19 is a 4,550-gallon diesel fuel AST inside a walled area on the northern end of the loading dock for Building 54.
- ◊ MP-16 is a 200-gallon AST underneath the emergency generator for Building 20.
- ◊ MP-30 is a 6,000-gallon UST east of Building 54.
- ◊ MP-29 is a 2,500-gallon UST east of Building 54.
- ◊ Unknown 1 is a 125-gallon diesel fuel AST for a generator in the mechanical room of Building T-2.
- ◊ Unknown 2 is an auxiliary 100-gallon diesel fuel AST day tank for a generator in Building T-2.

Both the No Action and Preferred Action Alternatives would represent a decrease in potential uncontrolled storage tank petroleum releases, as compared to when WRAMC was an operational Army Garrison, and no significant change from the current conditions.

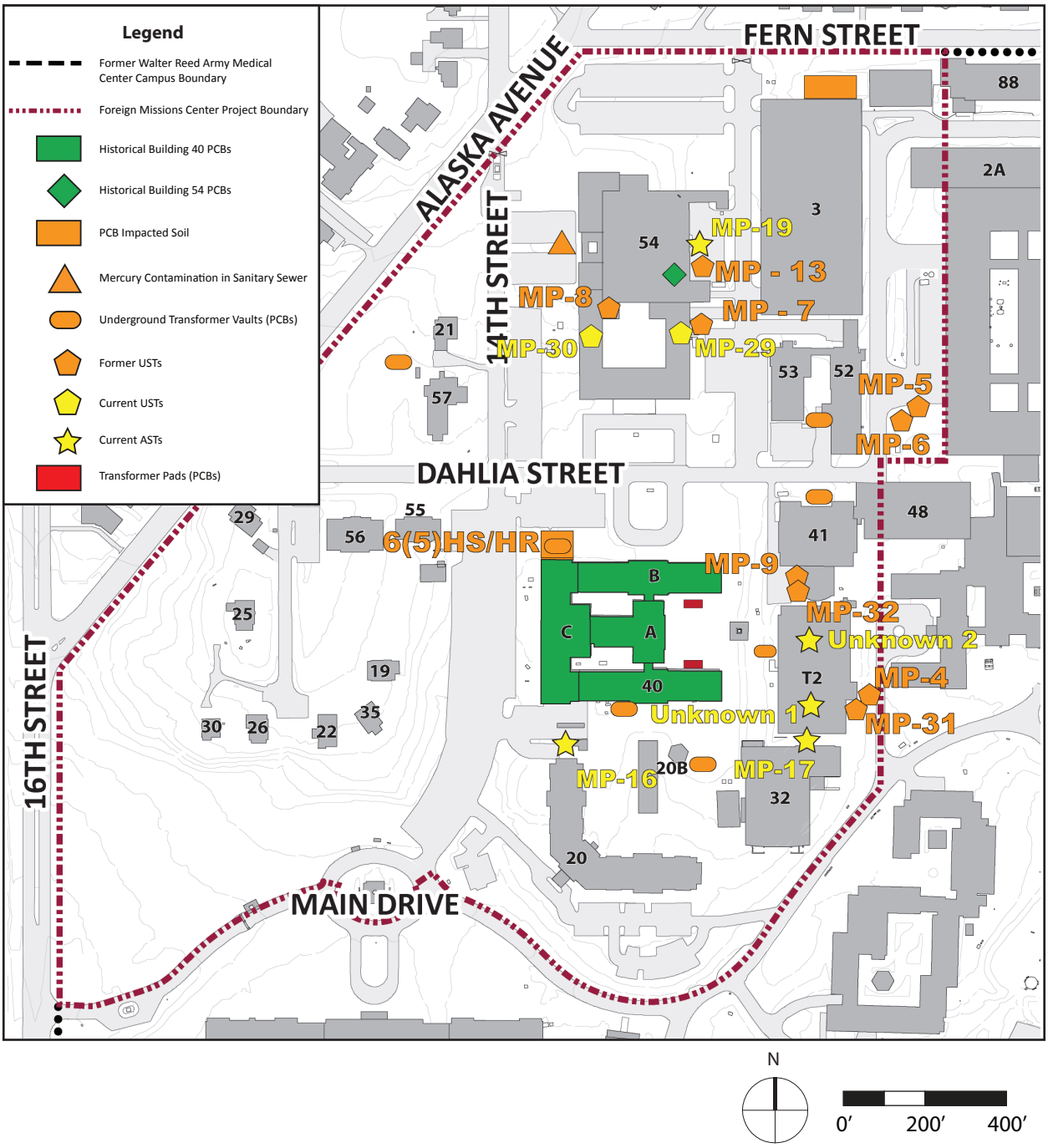
Under the No Action Alternative, two USTs and five ASTs would remain at the site of the former WRAMC. The tanks are used to store diesel fuel to operate electrical generators. These tanks are double-walled and are continuously monitored for leaks by a leak detection system, except for the auxiliary AST Unknown 2 which is empty and is disconnected from the primary tank. The tanks would continue to be maintained in accordance with storage tank and air pollutant regulations.

The Preferred Action Alternative would result in the removal of the storage tanks and decommissioning of the generators. It is reasonable to anticipate some generators for electricity would be installed; however, it is likely these would be smaller than the existing generators and would have smaller fuel tanks associated with them.

3.13.2 Polychlorinated Biphenyls (PCBs)

PCBs were historically used in electrical transformers as a dielectric fluid and coolant at the site of the former WRAMC. Historically, there were spills of PCB dielectric fluid and coolant that resulted in contaminated areas both inside the buildings and in outside areas (U.S. Army Garrison WRAMC, 2006, 2010, 2013). Several contaminated areas (PCB impacted soils, transformer vaults,

Exhibit 3.48 - *Petroleum Tanks and Hazardous Substances*



and transformer pads) remain on the Property (exhibit 3.48). These areas have been remediated to meet "low occupancy area" cleanup levels (U.S. Army Garrison WRAMC, 2006, 2010, 2013).

Currently, there are no transformers using PCB dielectric fluid and coolant at the site of the former WRAMC (U.S. Army Garrison WRAMC, 2013).

PCB contamination areas that have been identified outside of buildings are:

- ◊ PCB-contaminated soil was identified during the construction of the Rumbaugh Garage in 1992, in an area adjacent to the garage (U.S. Army Garrison WRAMC, 2006). The source of the PCBs was a subsurface transformer vault that had been installed at the site in 1961. The transformer and the vault were removed during the construction of the Rumbaugh Garage. Remediation of the PCB contamination was performed in accordance with the regulations to meet "low occupancy area" cleanup levels (U.S. Army Garrison WRAMC, 2006, 2010, 2013); however, additional impacted soil was present in the bottom of the excavation.

- ◊ An area adjacent to Building 40 was impacted by PCBs due to historical pumping of rainwater from a below ground transformer vault onto the grass (U.S. Army Garrison WRAMC, 2006). In accordance with regulations, two feet of PCB-contaminated soil was excavated from a roughly 50-by-50-foot area to achieve the commercial/industrial cleanup level of 25 parts per million (ppm) PCBs (Tidewater, Inc., 2007).

- ◊ The two concrete transformer pads on the east side of Building 40 (north and south) and soils surrounding the pads tested above the PCB action levels for a "low occupancy area" (U.S. Army Garrison WRAMC, 2013). The Army stated that the transformer pads have been remediated in accordance to regulations, and the Army plans to remediate the soils adjacent to the transformer pads in the future (Craig, 2013).

- ◊ Eight underground transformer vaults are on the site of the former WRAMC (U.S. Army Garrison WRAMC, 2013). These vaults historically had contained PCB oil cooled electrical transformers that in some cases leaked into the vault. Some of these vaults accumulate rainwater and periodically need to be pumped out to remove the water. The concrete in some of the vaults is impacted by PCBs.

PCB contamination areas that have been identified inside the buildings are:

- ◊ A transformer exploded in the basement of Building 54, spraying the floor with PCB oil. The area was investigated in accordance with the regulations and was designated a "low occupancy area" (U.S. Army Garrison WRAMC, 2013).

- ◊ The machine shop in the basement of Building 40 was found to be contaminated with PCB oil. The area was remediated in accordance with the regulations and was designated a "low occupancy area" (U.S. Army Garrison WRAMC, 2013).

Under the No Action Alternative, the PCB impacted areas would remain in place.

The Preferred Action Alternative would result in the removal of PCB impacted soil and other materials in accordance with the regulations.

3.13.3 Asbestos

The District of Columbia Municipal Regulations have requirements for the control of asbestos (Rule 20-800 Control of Asbestos).

The Occupational Safety and Health Agency has established regulations for asbestos exposure that address demolition of buildings containing asbestos, removal of asbestos, and its transportation and disposal (29 CFR 1926.1101 Asbestos).

Asbestos Containing Material (ACM) has been identified in buildings 19, 21, 25, 29, 40, 41, 52, 53, 54, 57, and T-2 (U.S. Army Garrison WRAMC, 2006). The Army is performing additional inspections that will provide more information concerning the location of ACM in buildings.

A network of steam tunnels used to heat the buildings exists beneath the site of the former WRAMC. The steam tunnels were insulated using ACM. The main tunnels have been abated by encapsulation, but the smaller laterals have not been abated (U.S. Army, 2006).

Under the No Action Alternative, ACM would remain in buildings and the steam tunnels.

The Preferred Action Alternative would result in the removal and disposal of ACM from buildings and steam tunnels in accordance with the regulations.

3.13.4 Lead-Based Paint

Residential dwellings have been investigated by the Army for paints containing lead. The Army has conducted remediation efforts for lead-based paint in many of the buildings (U.S. Army Garrison WRAMC, 2006). Some non-residential buildings at the site of the former WRAMC site are presumed to have lead-based paint because they were built before the ban on lead in paints took effect in 1978.

Under the No Action Alternative, lead-based paint would remain in some of the buildings on the site of the former WRAMC, at least for the short-term.

The Preferred Action Alternative would require building demolition in accordance with lead-based paint regulations. Buildings to be re-used may require testing and remediation in accordance with the regulations, depending on the future use of the building.

3.14 ENERGY

In 2006, the District of Columbia government passed the Green Building Act requiring publicly funded new building construction to meet various Leadership in Energy and Environmental Design (LEED) requirements. In 2010, in response to EO 13514 *Federal Leadership in Environmental, Energy, and Economic Performance*, DOS developed an agency sustainability plan that requires new construction and renovations achieve a minimum LEED Gold certification along with other agency-wide sustainability measures. EO 13514 includes the goal of a zero-net-energy building for federal facilities by 2030. A net-zero-energy building is a general term applied to a building using zero carbon emissions annually. The zero energy consumption principle is gaining considerable interest as renewable energy harvesting is a means of significantly reducing Greenhouse Gases (GHGs). With the exception of the reuse of Building 57/Memorial Chapel, the proposed building reuse and/or new buildings would be designed, constructed and occupied by a foreign mission. Foreign missions are not subject to these regulations, executive orders, or guidelines; however the design guidelines for the development of the FMC would encourage foreign missions to design to these sustainable design principles.

The LEED rating system created by the U.S. Green Building Council is the most widely used and recognized sustainability standard in the U.S. to achieve the requirements of EO 13514. Recognized internationally, the LEED certification system provides third-party verification that a building or community is designed and built using strategies for improving performance across metrics involving: energy savings, water efficiency, CO2 emissions reduction, improved indoor environmental quality, and stewardship of resources. There are other sustainability rating systems both in North America and around the world. Since the lots on the FMC would be developed by foreign missions, these other rating systems may be used by the designers of the chanceries to implement sustainable design.

The design guidelines for the FMC would encourage sustainable principles to promote sustainability across five major credit categories:

- **Sustainable Sites –** encourages strategies that minimize the impact on ecosystems and water resources (e.g., public transportation access, low-emitting and fuel efficient vehicles).

- **Water Efficiency –** promotes smarter use of water, inside and out, to reduce potable water consumption (e.g., water use reduction, water efficient landscaping).

- **Energy and Atmosphere –** promotes better building energy performance through innovative strategies (e.g., on-site renewable energy, green power).

- **Materials and Resources –** encourages using sustainable building materials and reducing waste (e.g., storage and collection of recyclables, materials reuse).

- **Indoor Environmental Quality –** promotes better indoor air quality and access to daylight and views (e.g., increased ventilation, low-emitting materials).

The No Action Alternative would not impact energy use or conservation.

The Preferred Action Alternative, to comply with EO 13514, would require that the construction of federal buildings meet LEED Gold standards and be more energy efficient than the existing buildings. In the future, energy sources that do not produce GHGs would be sought and used to comply with the net-zero-energy standards for buildings set forth in EO 13514 for federal buildings. In addition, design guidelines for the FMC would recommend that each chancery building be designed and constructed to meet LEED Gold certification standards or an equivalent standard. These measures would reduce the amount of emissions produced by the Preferred Action Alternative.

3.15 CONSTRUCTION IMPACTS

Earthwork, including clearing and grubbing, excavating, grading, embankment formation, and stockpiling, would be required during the construction of the Preferred Action Alternative. Exposed soils may result in the potential for increased site erosion and sedimentation impacts to nearby water resources. Some of the best management practices (BMPs) that may be implemented are:

- ◊ Conducting earthwork activities during a known dry season;
- ◊ Diverting stormwater that originates off-site away from the construction area;
- ◊ Minimizing the extent and duration of exposed soils by using temporary or permanent seeding or mulching;
- ◊ Constructing temporary sedimentation basins;
- ◊ Establishing a designated equipment cleaning/washing area with measures for the treatment of runoff prior to discharge; and
- ◊ Establishing an emergency response spill contingency plan.

Each individual parcel would be required to address construction BMPs and follow procedures established in the Design Guidelines.

Localized short-term potential impacts that may occur during construction of the Preferred Action Alternative are impacts to air, noise, vibration, traffic, and aesthetics.

Air quality impacts from construction activities would be temporary and are primarily associated with the operation of diesel-powered equipment and the generation of fugitive dust from excavation and earth moving activities. Air emissions from construction equipment can be minimized by properly maintaining engines. Fugitive dust could be generated as trucks travel to and from the construction site, and from the handling of cement, aggregate and other materials.

The effect of fugitive dust would vary depending on weather conditions during periods of earth moving activities.

Noise impacts from construction activities are a function of the noise generated by construction equipment, the location of construction, the sensitivity of adjacent land uses, and the timing and duration of the noise generating activity. The dominant source of noise from most construction equipment is the diesel engine.

Construction can result in varying degrees of ground vibration, depending on the equipment and methods employed. Operation of construction equipment causes vibrations that spread through the ground and diminish in strength with distance. Buildings in the immediate vicinity of the construction site respond to these vibrations with varying results ranging from no perceptible effects at the lowest levels, low rumbling sounds and perceptible vibrations at moderate levels, and slight damage to foundations at the highest levels.

Maintenance of traffic and construction staging would be planned and scheduled to minimize traffic delays. Signage could be used to notify motorists of road closures and detours. Access to local residences and businesses in the vicinity of the construction site could be maintained. Temporary disruptions in access would be coordinated with residents and business owners. Residents along designated truck haul routes may have to contend with the day-to-day hauling activities associated with the construction site.

Temporary visual impacts attributed to construction activities would be greatest for those residents immediately adjacent to the construction site. Views of heavy equipment and material stockpiles would be commonplace for the duration of the construction activities. Fugitive dust may impede visual quality during limited periods.

Particular attention should be given to the maintenance of public safety during the duration of construction, given the normal hazards associated with construction. Public access to construction sites should be prohibited to the extent possible. This can be accomplished with temporary fencing, warning signs, or other safety precautions.

3.16 RELATIONSHIP BETWEEN THE SHORT-TERM USE OF THE ENVIRONMENT AND THE MAINTENANCE AND ENHANCEMENT OF LONG-TERM PRODUCTIVITY

The No Action Alternative would not have short-term uses of the environment that would result in impacts.

The Preferred Action Alternative would result in short-term uses of the environment. Short-term uses of the human environment would occur during construction. Construction of the Preferred Action Alternative would require a staging area, stockpiling area, roadway construction, and temporary traffic increase around the construction areas. Additional short-term impacts would be: air quality degradation from increased emissions from construction vehicles and activities,

noise impacts, other socioeconomic and community impacts from construction vehicles (possible roadway obstructions or minor traffic detours), and wastes from construction.

The proposed action is undertaken with consideration of the current and future requirements of the FMC. The projected benefits from property to be developed and/or redeveloped for use as foreign missions within the District of Columbia provided by the Preferred Action Alternative outweigh the local short-term impacts and use of resources. The proposed action is consistent with the maintenance and enhancement of long-term productivity for the study area and region.

3.17 IRREVERSIBLE AND IRRETRIEVABLE COMMITMENTS OF RESOURCES

Implementation of the Preferred Action Alternative involves a commitment of a range of natural, physical, human, and fiscal resources. Land used in the construction of the Preferred Action Alternative is considered an irreversible commitment during the time period that the land is used. However, if a greater need arises for use of the land, the land can be converted to another use. There is no reason to believe such a conversion would be necessary or desirable.

Fossil fuels, labor, and construction materials such as cement, aggregate, and bituminous material would be expended during construction. Additionally, labor and natural resources would be used in the fabrication and preparation of construction materials. These materials are generally not retrievable. However, they are not in short supply and their use would not have an adverse effect upon continued availability of these resources.

The commitment of these resources is based on the concept that the U.S. Government and foreign governments would benefit by the Preferred Action Alternative's provision of additional property to be developed and/or redeveloped for use as foreign missions within the District of Columbia. Supplying parcels for development would help to satisfy the high demand for foreign mission facilities in the District and provide the U.S. Government/DOS with land to leverage for reciprocal sites to build new, safer facilities overseas. The benefits are anticipated to outweigh the opportunity cost of commitment of these resources.

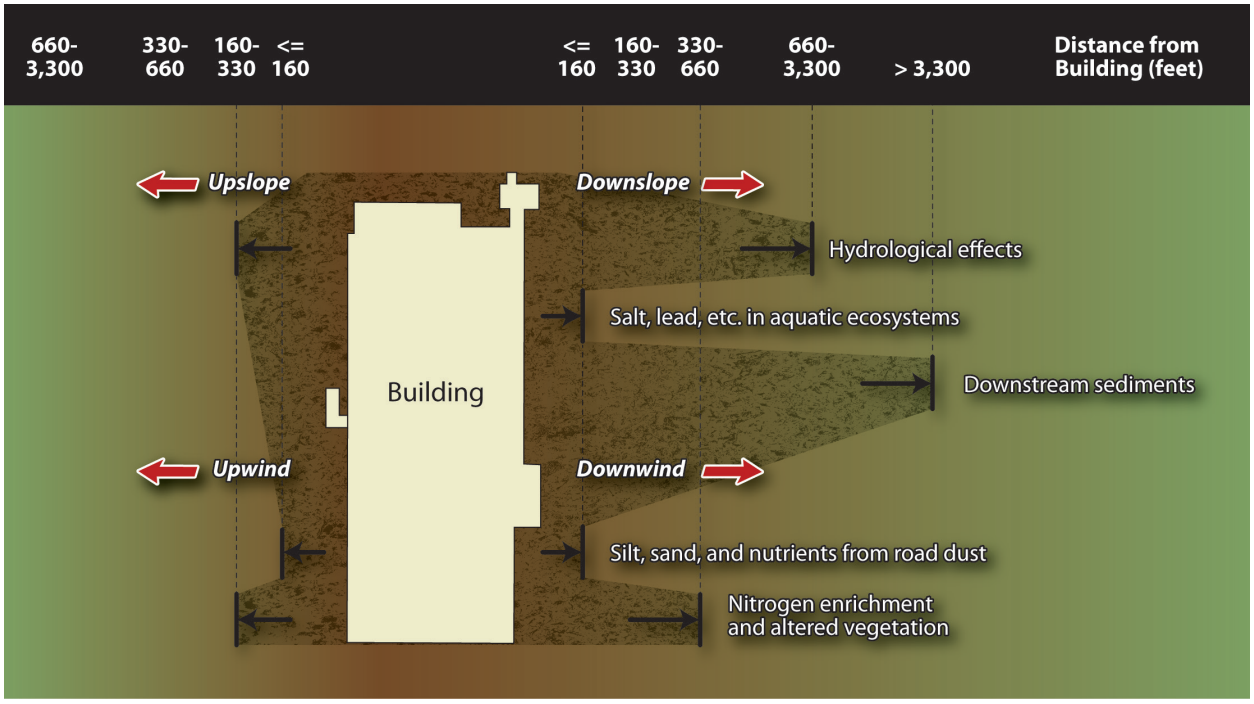
3.18 INDIRECT AND CUMULATIVE IMPACTS

3.18.1 Indirect Impacts

Indirect (or secondary) impacts are defined as those that are

> "…caused by the action and are later in time or farther removed in distance but are still reasonably foreseeable. Indirect impacts include growth-inducing impacts and other impacts related to induced changes in the pattern of land use, population density or growth rate, and related impacts on air and water and other natural systems, including ecosystems" (40 CFR 1508.8b).

Exhibit 3.49 - *Approximate Distances of Indirect Effect Zones*



The Preferred Action Alternative creates an indirect-effect zone in which indirect impacts extend beyond the former WRAMC and the immediate surrounding areas (exhibit 3.49).

An increase in the potential for sediment loading and roadway contaminants introduced to surface waters exists for the Preferred Action Alternative. Erosion from slopes could affect water quality in surface waters during construction. Impacts from sedimentation caused by construction would be temporary. Chemicals and pollutants from increased traffic create indirect impacts particularly to surface waters and aquatic systems. As part of winter maintenance, anti-icing chemicals with chlorides (i.e., primarily rock salt) are used to combat the effects of snow, sleet, and ice. Salt from a road is introduced into surface waters when runoff occurs and flows are carried into rivers and streams.

The stormwater management practices that would be implemented with the Preferred Action Alternative would have a long-term indirect beneficial impact on surface water by reducing stormwater runoff, improving water quality, and helping to comply with the TMDLs established for metals and bacteria (section 3.2.1).

3.18.2 Cumulative Impacts

Consideration of cumulative effects consists of an assessment of the total effect on a resource or ecosystem from past, present, and future actions that have altered the quantity, quality, or context of those resources within a broad geographic scope. Under the CEQ regulations, cumulative effects are defined as:

> "…the impact on the environment which results from the incremental impact of the actions regardless of what agency (federal or non-federal) or person undertakes such other actions. Cumulative effects can result from individually minor but collectively significant actions taking place over a period of time" (40 CFR 1508.7).

The cumulative-effects analysis considers the aggregate effects of direct and indirect impacts—from federal, non-federal, public, or private actions—on the quality or quantity of a resource.

The intent of the cumulative effects analysis is to determine the magnitude and significance of cumulative effects, both beneficial and adverse, and to determine the contribution of the proposed action to those aggregate effects. Contributions to cumulative effects from the Preferred Action Alternative on resources would be limited to those derived from direct and indirect impacts of the proposed action. Because the proposed action would not result in significant direct or indirect impact to resources, the cumulative effects analysis for the proposed action was limited to climate change and surface waters from stormwater, as these are the resources which would be affected by direct and indirect effects of the Preferred Action Alternative. No other resources were considered in the analysis of cumulative effects.

The study area used for the analysis of potential cumulative impacts is approximately 1,795 acres and consists of six census tracts near the former WRAMC that encompass the Brightwood, Colonial Village, Shepherd Park, and Takoma neighborhoods (exhibit 3.50).

3.18.2.1 Development

The year 1977 was used as the timeframe for the consideration of past actions. Building 2/ Heaton Pavillion and associated below-grade parking was constructed and ready for occupancy on September 26, 1977. There were 5,500 rooms covering 28 acres of floor space. It offered accommodations for 250 patients, admitting more than 14,000 a year. Over 60 clinics served approximately 750,000 patient visits per year.

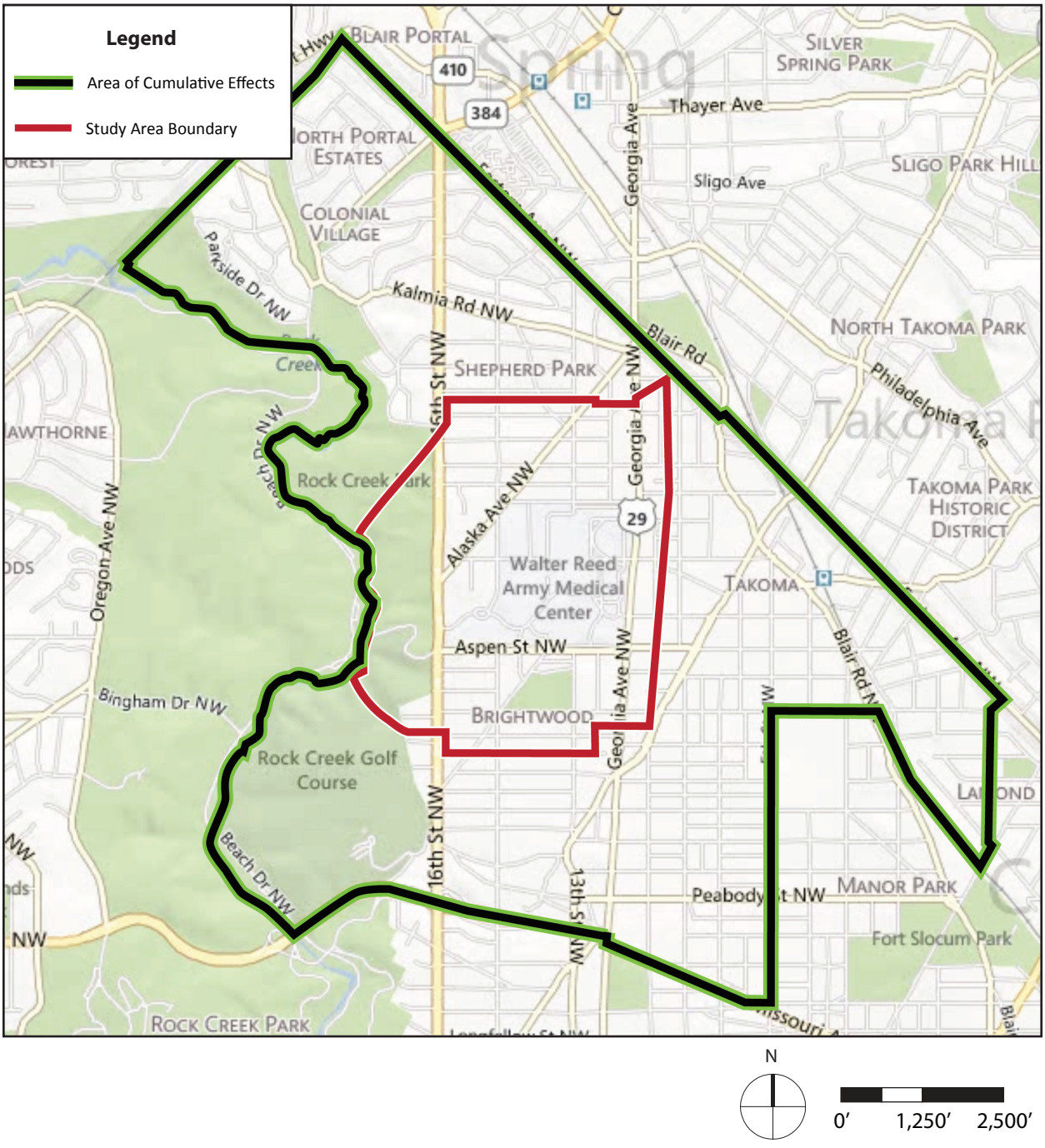
There has been some development in the study area since 1977. Past development consists of:

- The Rumbaugh Garage which was built in 1993 to provide staff parking for the former WRAMC. The garage contained 1,135 parking spaces on five levels.

- Fisher House #2, built in 1996, a two-story residence that provided accommodations for Wounded Warriors and their families and was designed to resemble a free-standing home. The rectilinear layout accommodates 5,017 square feet of floor area divided between two floors.

- The Mologne House, constructed in 1997 to provide hotel style guest accommodations for Wounded Warriors, their families, and other guests. The four-story 95,600 square foot building provides 200 rooms in a combination of efficiencies and dormitories.

Exhibit 3.50 - *Cumulative Effects Study Area*



- ◊ The Wagner Sports Center, a two-story 35,700 square foot physical fitness and recreational facility that was built in 2003.

- ◊ Fisher House #3, built in 2004, a two-story residence that provided accommodations for Wounded Warriors and their families and was designed to resemble a large free-standing home. The rectilinear layout contains 8,692 square feet of floor area divided between two floors.

Present development consists of public and governmental actions and known private-sector development projects.

The eastern half of the former WRAMC is planned for redevelopment and reuse of existing buildings. This redevelopment would provide a mix of uses pursuant to the goals developed in conjunction with the community and the District of Columbia. The site of the former WRAMC would have a mix of quality open spaces and retail, residential uses with diverse housing options, commercial office and/or institutional space, medical care, and cultural and community uses. The proposed development consists of 1,945,000 square feet of residential development; 767,000 square feet of office development; 212,000 square feet of retail development; and 176,400 square feet of other development (DC Office of Planning, 2012).

A Walmart at Georgia Avenue and Missouri Avenue would consist of a 105,000 square foot center and 345 underground parking spaces for employees and customers (Walmart, 2013).

Other development consists of Takoma Park's historic main street business district and Takoma Metro Station with the development of 150 rental apartments, 50 of which would be affordable to people making below 60 percent of area median income (Level2Development, 2013).

The development of the Beacon Center on Georgia Avenue, which is a mixed-use project along Georgia Avenue, wraps around the existing Emory United Methodist Church. Plans call for 58,000 square feet of new church space, two residential buildings totaling 91 units of affordable housing, and retail space along Georgia Avenue.

The Takoma Park development is located at 6924 Willow Street. The proposed development consists of two apartment buildings totaling 76 units with 25,000 square feet of green space.

There is no other present development within the study area.

The build out year for the Preferred Action Alternative is 2032; therefore the year 2032 was the limit of the future time frame for reasonably foreseeable future actions.

Reasonably foreseeable development consists of the Engine 22 Firehouse Replacement and new DC Streetcar corridors and extensions. A site for the new Engine 22 has been selected on the southeast corner of Georgia Avenue and Butternut Street for a 30,000 square foot four bay

facility that can provide the community with Fire and EMS Service and provide underground parking. Construction is anticipated to be completed in 2015.

The DDOT, in partnership with the WMATA, has developed the "DC's Transit Future System Plan" to establish a network of new streetcar lines operating in eight corridors. The extension of the Georgia Avenue to Buzzard Point Streetcar Line (Phase 2) further north to Takoma would extend streetcar service further north along Georgia Avenue and connect to the Takoma Metrorail Station. It is expected to be completed by 2018 (DDOE, 2010).

No other reasonably foreseeable future development is anticipated within the study area.

3.18.2.2 Greenhouse Gas (GHG) Emissions

Contributions to cumulative resource effects from implementation of the Preferred Action Alternative are limited to regional GHGs and stormwater concerns.

Natural processes and human activities affect GHGs. Prominent GHGs include CO_2, methane, O_3, water vapor, nitrous oxide, and chlorofluorocarbons. The accumulation of GHG in the atmosphere affects the Earth's temperature. Emissions from human activities have caused the atmospheric concentrations of heat-trapping GHG to increase significantly. These gases prevent heat from escaping to space, somewhat like the glass panels of a greenhouse. This accumulation has contributed to an increase in the temperature of the Earth's atmosphere known as climate change. Climate change is defined by the United Nations Framework Convention on Climate Change as: a change of climate which is attributed directly or indirectly to human activity that alters the composition of the global atmosphere and which is in addition to natural climate variability observed over a comparable time period (EPA, 2008).

In February 2010, the CEQ released its Draft Guidance on Consideration of the Effects of Climate Change and Greenhouse Gas Emissions. The draft guidance proposes that projected annual emissions of 25,000 metric tons of GHG be used as an indicator that a proposed action may warrant analysis under NEPA for greenhouse gas emissions and climate change impacts. The draft guidance specifically indicates that this reference point is not an absolute threshold, but a reference point for analysis. The draft guidance recommends that agencies should seek to include a discussion on measures that would reduce emissions and to discuss the link between the project's emissions and climate change from a qualitative perspective.

The District of Columbia completed a GHG emissions inventory in 2010 for the calendar year 2006. During 2006, the District of Columbia's GHG emissions totaled 10.5 million metric tons of carbon dioxide equivalents (CO_2e), or 18 tons CO_2e for each resident. This value is lower than the national average of 19.6 CO_2e per capita, but higher than other major cities due to energy use by the District of Columbia's large day-time population of federal and other workers. Exhibit 3.51 provides a breakdown of emissions by sector, including: buildings (residential, non-residential, and federal); vehicles (indicated as VMT or vehicle miles traveled); mass transit (Metro); and waste; and it provides a breakdown of the specific energy sources of GHG emissions, including

Exhibit 3.51 - *Regional Emissions Inventory*

Community Emissions by Sector	*Green Gas Emissions*	*%*
Non-Residential sector (commercial buildings, hospitals, schools, etc.)	5.4 million metric tons CO2e	51
Residential sector (single and multi-family homes)	1.5 million metric tons CO2e	14
Federal facilities managed by the GSA	963,000 metric tons CO2e	9
Vehicle Miles Traveled (VMT)	2.2 million metric tons CO2e	22
Transit-Metro	177,000 metric tons CO2e	2
Solid Waste	186,000 metric tons CO2e	2
Community Emissions by Source	*Green Gas Emissions*	*%*
Electricity	5.9 million metric tons CO2e	54
Natural Gas	1.5 million metric tons CO2e	16
Gasoline	1.9 million metric tons CO2e	20
Fuel Oil	423,000 metric tons CO2e	4
Diesel	359,000 metric tons CO2e	4
Municipal Solid Waste	185,000 metric tons CO2e	2
Kerosene	1,100 metric tons CO2e	0.01

electricity, natural gas, fuel oil, vehicle fuel (gasoline and diesel), kerosene, and emissions from solid waste. Electricity consumption is the largest driver of GHG emissions.

Reducing building energy use is a challenge central to the success of the Climate Action Plan. To capitalize on the many benefits of energy efficiency and climate protection, the District of Columbia has committed to reduce its emissions by 20 percent below 2006 levels by 2012, 30 percent below 2006 levels by 2020, and 80 percent below 2006 levels by 2050 (Government of the District of Columbia, 2010).

The 2012 and 2020 targets have been modeled to be attainable based on what the District of Columbia has already implemented, or has planned or proposed. Reductions in 2050 have considerably more uncertainty surrounding them, but rely on the best information available at the time of this writing pertaining to future changes to building codes, vehicle fuel efficiency standards, and other innovations over the next 40 years (Government of the District of Columbia, 2010).

Climate change is likely to continue as GHG emissions are warming the planet in ways that will have impacts on natural resources, energy use, ecosystems, economic activity, and potentially on the quality of life. The aggregated effect of the reasonably foreseeable future actions identified in this document would not contribute to the cumulative effects of climate change as these actions are small in scope.

The No Action and Preferred Action Alternatives would not impact GHG emissions. The Preferred Action Alternative may result in a slight negative effect on air quality as the proposed action would allow more traffic in the area (see section 3.8).

3.18.2.3 Stormwater Management

Stormwater impacts have been and would continue to be influenced by land use and development. The cumulative effect of the past, present, and reasonably foreseeable future impacts consists of an increase in impervious surfaces.

The site of the former WRAMC has a significant extent of impervious cover, accounting for approximately 23.4 acres, or 52 percent of the area.

The DC-LRA project proposed to capture, treat, and reuse stormwater and achieve full water reuse by 2050 through the use of a bio-retention pond, rain gardens, and curbside bio-retention areas. This would reduce stormwater runoff to pre-developed conditions and therefore relieve the projects of any downstream impacts. The Preferred Action Alternative would increase impervious surfaces to approximately 35 acres. However, the Preferred Action Alternative would be required to reduce the developed peak flows from the site of the former WRAMC to pre-development conditions through detention, reuse, and low impact development. To accommodate the infrastructure improvements outside of individual lots (i.e., roads, walks, open space, etc.); detention/water quality improvement areas would be designated adjacent to the road network. With the incorporation of rainwater harvesting and water quality improvement measures into the network, peak discharge quantities can readily be controlled and managed to satisfy local regulation requirements. Therefore, no constraints created by the level of development for the site of the former WRAMC are anticipated by the storm drainage system. Each individual parcel would be required to address stormwater requirements.

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4.0 COORDINATION AND CONSULTATION

Public participation is an integral component to the preparation of an EIS. During the process of planning and developing the proposed action and preparing an EIS, public participation begins with scoping of issues and key concerns to be addressed in the analysis and documentation and concludes with the ROD (see section 1.5).

Chapter 4 summarizes the coordination and consultation activities performed for this study among the federal, state, and local agencies and the public.

Scoping is a process for determining the range of issues to be addressed in an EIS and for identifying potentially significant issues associated with the alternatives (40 CFR Part 1501.7). The objectives of the scoping process are to notify interested people—other federal, state, and local agencies, tribes, and other groups—about the alternatives being considered, solicit comments about environmental issues, alternatives, and other items of interest, and consider those comments in the analysis and preparation of the EIS.

4.1 SCOPING

At the beginning of the study, scoping letters were mailed to 18 agencies with jurisdiction over features within the study area or an interest in the study and its results, in accordance with the procedural provisions of NEPA and DOS's requirements and policies for early coordination. Letters, accompanied by a map of the study area, description of the purpose and needs, and an outline of the study were mailed in June 2012 to notify the appropriate agencies of the study to be performed, request specific information, and encourage participation in the study by identifying areas of initial concern (exhibit 4.1).

DOS held a public scoping meeting on July 19, 2012, in the District of Columbia. The public scoping meeting was an open house with displays, a presentation, and time for public comments and questions to be submitted for consideration in the planning of the proposed action and preparation of the EIS. Approximately 55 people attended including residents, community leaders, members of the press, elected officials, and District of Columbia government agency representatives.

The open house consisted of staffed exhibits with information pertaining to the planned FMC and the NEPA process. Comments were collected at each station and separate comment stations were available for participants to submit comments electronically on laptops or on comment cards. During the scoping process, the key issues of concern identified were the preservation of trees and open space, traffic impacts, security, and historic preservation (see section 1.7).

4.2 AGENCY COORDINATION

Agency coordination is a general term referring to the process whereby government agencies are afforded an opportunity to review and comment on the proposed action at various points in the study and at key milestones.

Exhibit 4.1 - *Summary of Scoping Letters*

Agency or Organization	*Information Requested*	*Information Received*
Federal Agencies		
U.S. Environmental Protection Agency, Region 3	General letter requesting comments	No response received.
Federal Highway Administration - District of Columbia Division	General letter requesting comments	No response received.
U.S. Army Corps of Engineers Baltimore District	General letter requesting comments	No response received.
National Park Service - National Capital Region	General letter requesting comments	No response received.
U.S. Fish and Wildlife Service	Federally listed or proposed threatened or endangered species or known critical habitats in the study area	No proposed or federally listed endangered or threatened species are known to exist in the study area.
District Agencies		
District Department of Transportation	General letter requesting comments	DDOT would participate in this Master Plan and EIS and provide comments. Be sure to complete a comprehensive transportation review, impacts to right-of-way would need to be permitted, and conduct a tree survey.
District of Columbia State Historic Preservation Office	General letter requesting comments	No official response received. The DC-HPO is a Consulting Party in accordance with the Section 106 of the NHPA and has participated in some of the coordination meetings (see 4.2).
District Office of Planning	General letter requesting comments	See Office of the Deputy Mayor for Planning and Economic Development response.
Executive Office of the Mayor	General letter requesting comments	List of topics that should be addressed in the scoping process for this EIS: retaining open access for pedestrians and bicyclists, preserving open access through the ellipse on Main Drive, permitting a proposed setback of 30 feet from the curb line along the southern DC-LRA/DOS boundary, ensuring compatibility with the *Walter Reed Re-Use Site Small Area Plan*, protecting trees, providing open space, historic buildings, fencing, and coordination with the DC-LRA.
District of Columbia Council	General letter requesting comments	Ward 4 Councilmember Muriel Bowser will participate in scoping to assist in identifying neighborhood concerns.
District of Columbia Water and Sewer Authority	General letter requesting comments	The project location is within an area that is being planned for pressure zone improvements, the sizes of water mains would need to be reviewed.
District Department of Environment	District-listed or proposed threatened or endangered species or known critical habitats in the study area	Be sure to address the environmental concerns of the EPA and the District Government in the 1990s, including a nuclear reactor leak, PCB leaks, noncompliant hazardous waste storage sites and other potential issues. The proposed project does not harbor any species listed by the ESA, any species classified by Nature Serve as GI and G2, nor any ecologically sensitive communities.

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Exhibit 4.1 - *Summary of Scoping Letters (Continued)*

Agency or Organization	*Information Requested*	*Information Received*
District Department of Parks and Recreation	General letter requesting comments	No response received.
District Office of Zoning	General letter requesting comments	Due to its administrative role and that it does not make land use policy recommendations, it would be a conflict of interest to be a cooperating agency for this EIS.
Office of the Deputy Mayor for Planning and Economic Development	General letter requesting comments	DC-LRA will participate as a coordinating agency. List of topics that should be addressed in the scoping process for this EIS: retaining open access for pedestrians and bicyclists, preserving open access through the ellipse on Main Drive, permitting a proposed setback of 30 feet from the curb line along the southern DC-LRA/DOS boundary, ensuring compatibility with the Walter Reed Re-Use Site Small Area Plan, protecting trees, providing open space, developing sustainability goals, minimizing demolition of historic buildings, minimizing fencing, and coordination with the DC-LRA on possible shared parking and interim use of the FMC site.
Regional or Other		
The Committee of 100 on the Federal City	General letter requesting comments	The EIS process should respect the site's history, consider all natural environmental impacts, including visual, relate new development to existing neighborhoods, ensure that issues related to all transportation modes are fully considered, and design public street connections to surrounding neighborhoods.
Metro Washington Council of Governments	General letter requesting comments	No response received.
National Capital Planning Commission	General letter requesting comments	Make sure the EIS addresses the direct, indirect, and cumulative impacts on social and economic features, transportation systems, cultural resources, natural features, utilities, and health and safety
Washington Metropolitan Area Transit Authority	General letter requesting comments	Wishes to be a coordinating agency and would transmit the requested information as part of scoping

This study was discussed with agencies having direct or indirect jurisdiction over features in the study area or an interest in the study, through a series of meetings (exhibit 4.2). The agencies that regularly attended these meetings were DOS, NCPC, DMPED, ACHP, CFA, DC-HPO, and DC-LRA.

Exhibit 4.2 - *Summary of Agency Meetings*

Meeting	*Discussion and Results*
August 15, 2012	The purpose of this meeting was to initiate discussions with Federal and District agencies and to receive comments and feedback on the planning and development of the proposed action. A presentation was shown consisting of an overview of the proposed action, existing buildings at the former WRAMC, the NEPA process, transportation issues, and the landscape and topography of the former WRAMC. Agency feedback emphasized the need for: 1) providing opportunities for reuse of historic buildings, 2) maintaining trees on western site border, 3) maintaining a relationship between DC-LRA and FMC campuses and keeping the existing street grid, 4) maintaining the historic perimeter fence, designing additional fencing to be compatible with the historic fence, and minimizing the visual impact of interior fencing, and 5) respecting historic site use and DC-LRA density zones. **Attendees:** DOS, NCPC, DMPED, ACHP, CFA
October 17-18, 2012	The purpose of this meeting was to develop a proposed conceptual framework for density and massing on the site, create parameters for site utility development, and brainstorm concepts for potential adaptive reuse of historic buildings. Historic buildings were discussed, and a reuse potential rating was assigned based on the following criteria: ◇ Building condition ◇ Historic significance ◇ Potential for reuse as a chancery ◇ Architectural aesthetic ◇ Lot development efficiency ◇ Appropriateness of building size and type ◇ Compliance with Foreign Missions Act ◇ Available parking ◇ Order of magnitude cost for redevelopment ◇ Marketability to foreign missions ◇ Optimization of site usage The buildings with the highest reuse potential rating were Buildings 57, 52, and 41. Building 40 also had a moderately high reuse rating. **Attendees:** DOS, NCPC
November 5, 2012	The purpose of this meeting was to review the progress and status of the study and to seek feedback on the planning and development of the proposed action. Federal and District agencies provided feedback on the proposed action. CFA recommended developing the axial connection between Building 40 and Building 1, keeping the historic perimeter fence, and developing potential open spaces between buildings to create campus character. The CFA expressed that the cost model should not be the only driver of site design, and that some early concepts for discussion appeared too suburban in character. The DC-LRA expressed concern about potential additional traffic along Main Drive and the residential areas to the north and south of the FMC and requested coordination between DOS and DC-LRA teams for potential east-west site connections. The NCPC expressed potential concern about the option to restrict cross-site vehicle traffic on Dahlia Street. NCPC suggested studying a campus quad model, possibly developing a commemoration space between Buildings 40 and 1, and possibly repurposing Buildings 40 and 54. The DC-HPO commented that the campus was not historically outward facing and stated the importance of reflecting how buildings relate to each other and to the main internal streets. **Attendees:** DOS, NCPC, DMPED, ACHP, CFA, DC-LRA, DC-HPO

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Exhibit 4.2 - *Summary of Agency Meetings (Continued)*

Meeting	*Discussion and Results*
November 14, 2012	The purpose of this meeting was to develop and discuss some preliminary concepts for future discussions: 1) developing on a "clean" site, 2) retaining Buildings 41, 52 and 57, and 3) retaining historically significant buildings, landscapes, and cultural elements. Four preliminary concepts were developed: ◇ Suburban/ICC model - Chanceries are accessed from internal DOS-owned streets ◇ Urban/Massachusetts Avenue model - Based on the idea that many chancery lots have addresses on both existing and proposed public street ◇ Retain eligible buildings model - Based on retaining the individually eligible, historic WRAMC buildings ◇ Hybrid model - Combines characteristics of the above models, and lots should front primary roads **Attendees:** DOS, DC-LRA
November 27, 2012	The purpose of this meeting was to further develop and discuss some preliminary concepts including the preferred elements of each. The discussions of preliminary concepts focused on cost effectiveness, ability to address community concerns raised during scoping, and effects on cultural resources (i.e., potential for adaptive building reuse, maintaining the historic street grid and the historic open character of campus). The results of this discussion were used to develop a broad range of reasonable alternatives. **Attendees:** DOS, DC-LRA
January 22, 2013	The purpose of the meeting was to develop a roadmap for NHPA Section 106 consultation with input from DC-HPO and ACHP, as well as initiate discussion on the structure of a PA for the former WRAMC. ACHP recommended the PA reference existing approval processes (e.g., NCPC process). Known factors should be documented in clauses and written to allow flexibility for the future. Unknown factors should be accounted for in PA clauses, such as: 1) the potential for a separate Section 106 undertaking if a parcel is sold in a fee simple acquisition to a foreign country, 2) underground artifacts that may be discovered during construction, and 3) the potential for a given historic building to be removed versus repurposed. **Attendees:** DOS, ACHP, DC-HPO
April 16, 2013	The purpose of the meeting was to further analyze the range of reasonable alternatives. Agencies provided feedback that action alternatives should: 1) create a strong front door presence for chanceries along primary streets, 2) orient open green space to the front of chancery lots, and 3) maintain historic context of Historic Building 57/Memorial Chapel by not overshadowing the building with chanceries and consider surrounding it with green space. The results of this meeting were used to refine the range of reasonable alternatives 1–6 and provide the DOS with criteria for narrowing the range of alternatives. **Attendees:** DOS, CFA, NCPC, DC-HPO
May 6, 2013	The purpose of the meeting was to further refine the range of reasonable alternatives. The development and analysis of alternatives focused on strong street frontage and green spaces. The Chapel was retained with green spaces, reusing Dahlia and 14th Streets would be appropriate, and using Dahlia Street as the main spine linking FMC with DC-LRA was good. CFA applauded keeping the chapel and surrounding it with green space. **Attendees:** DOS, CFA
May 23, 2013	The purpose of the meeting was to further refine the range of reasonable alternatives with the NCPC. Discussions and decisions concluded that the proposed plan made sense and is flexible to accommodate potential differing needs of future foreign missions, and considered keeping both the Chapel with green spaces and having Dahlia Street as a main street with green space along 14th were good ideas. NCPC liked and saw the improved access to DC-LRA development as embracing good urban planning and connectivity with the surrounding neighbors. **Attendees:** DOS, NCPC

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Exhibit 4.2 - *Summary of Agency Meetings (Continued)*

Meeting	*Discussion and Results*
June 3, 2013	The purpose of the meeting was to further refine the range of reasonable alternatives with CFA. CFA provided feedback that developing both 14th Street and Dahlia Street as major roads was desirable and leaving the area around the Chapel as green space was good. Comments were that the design was a real improvement; it was pleasing, natural, logical, worked well, and had a campus feel. **Attendees:** DOS, CFA
November 14, 2013	The purpose of the meeting was to review the project status with the National Park Service (NPS), Rock Creek Conservancy (RCC) and DC-LRA and receive feedback. NPS requested to be a consulting party for Section 106, and that future connections between the WRAMC site and Rock Creek Park be considered. NPS, DC-LRA and DOS will coordinate to determine potential access locations. RCC requested that DOS and DC-LRA accommodate informational signage and/or information kiosks about Rock Creek Park on the WRAMC site. DOS and DC-LRA agreed to consider placing informational signage at one or more locations to be determined in the future. **Attendees:** DOS, DC-LRA, NPS, RCC
December 3, 2013	The purpose of the meeting was to update CFA on the project status and receive feedback on proposed design guidelines. CFA recommended that foreign mission fences should use established height/height ranges, dark colors, a specified range of appropriate materials, and achieve desired variety at gates or entrances. The design guidelines should recognize the heritage of the garden area between Buildings 1, 40 and 41. **Attendees:** DOS, CFA
December 4, 2013	The purpose of the meeting was to update NCPC on the project status and receive feedback on proposed design guidelines. NCPC noted that the design guidelines were moving in a good direction, and that architectural guidelines for new structures should be varied, based on proximity to historic structures. **Attendees:** DOS, NCPC
December 10, 2013	The purpose of the meeting was to further coordinate traffic issues with DDOT. The current 2010 traffic counts will be updated; however, the results are expected to be very similar to the 2010 counts. ICC design guidelines allow 1:1 parking ratio; DDOT would like to see a lower ratio for FMC parking. The design team will work with NCPC to develop design guidelines using 1:1 ratio as the worst case scenario and the following criteria: ◇ There will be no on-street parking allowed at the FMC ◇ Each foreign mission will be responsible for providing parking resources to satisfy both proposed and future staffing levels as well as visitors. Foreign missions will need to either house their entire employee parking on-site, or substitute alternative transportation measures. Parking must be accommodated on each lot(s) and concealed from view in structured parking. Visitor parking may include 4-8 surface parking spaces depending on lot size. Where only one building is constructed, structured parking shall be underground. If multiple buildings are planned, aboveground structured parking may be in an adjacent structure on the lot ◇ During the design approval process, each foreign mission shall submit a transportation/parking management plan for review and approval by NCPC. Plans may include alternative transportation options in lieu of providing 100% of parking requirements on site. Sustainable transportation plans incorporating alternative transportation are highly encouraged.

4.3 CONSULTING PARTIES

In compliance with Section 106 of the NHPA, consulting parties were identified to consult on potential effects to historic resources and measures to minimize and mitigate the effects. Letters were sent to the following parties notifying them of the undertaking and asking for their interest in participating as consulting parties:

- ◊ District of Columbia Office of Planning Historic Preservation Office
- ◊ The Advisory Council on Historic Preservation
- ◊ The National Capital Planning Commission
- ◊ The U.S. Commission of Fine Arts
- ◊ Advisory Neighborhood Commission 4A
- ◊ Advisory Neighborhood Commission 4B
- ◊ Brightwood Community Association
- ◊ The Committee of 100 on the Federal City
- ◊ District of Columbia Office of the Deputy Mayor for Planning and Economic Development
- ◊ District of Columbia Office of Planning
- ◊ The District of Columbia Preservation League
- ◊ The National Trust for Historic Preservation
- ◊ Shepherd Park Citizens Association
- ◊ The Walter Reed Society
- ◊ Ward 4 Council Member Muriel Bowser
- ◊ Washington City Administrator

The following have requested to be consulting parties:

- ◊ District of Columbia Office of Planning Historic Preservation Office
- ◊ The Advisory Council on Historic Preservation
- ◊ The National Capital Planning Commission
- ◊ The Committee of 100 on the Federal City
- ◊ The Alliance to Preserve The Civil War Defenses of Washington

4.4 PUBLIC INVOLVEMENT

A public meeting was held at Tifereth Israel Temple on 16th Street, on June 18, 2013. The purpose of the meeting was to introduce the process of complying with Section 106 of the NHPA and receive feedback and stakeholder concerns related to historic and archaeological resources. The meeting consisted of a presentation on the historic significance of WRAMC and a question and answer session. The approximately 60 attendees were comprised of members of the public and the following government and community groups:

- ◊ National Capital Planning Commission (NCPC)
- ◊ The Committee of 100 on the Federal City
- ◊ Deputy Mayor for Planning and Economic Development (DMPED)
- ◊ Advisory Neighborhood Commission 4A
- ◊ DC's Walter Reed Army Medical Center Local Redevelopment Authority (DC-LRA)
- ◊ Executive Office of the Mayor
- ◊ Brightwood Community Association
- ◊ Shepherd Park Community Association
- ◊ DC Historic Preservation Office (DC-HPO)
- ◊ Advisory Neighborhood Commission 4B
- ◊ The Alliance to Preserve the Civil War Defenses of Washington (APCWDW)
- ◊ Walter Reed Society

The APCWDW and The Committee of 100 on the Federal City noted that the WRAMC can be viewed as "sacred ground" because of the Civil War Battle of Fort Stevens. They emphasized the need to preserve open space on the campus, and provide interpretive signage on historic resources. DOS noted that additional research would occur to understand the level of sensitivity of the FMC site with regard to historic and prehistoric activity, and information would be incorporated into the master plan. DOS would support the signage program being created as a stipulation of the Army PA and incorporate the signage program into the master plan.

The Committee of 100 on the Federal City urged DOS to consider retaining or reusing the Officer's Quarters buildings. DOS noted that while the quarters are not marketable for reuse as chanceries, possible mitigation options are being considered for the buildings to be relocated (as five of them were in 1954) for reuse by others.

A meeting was held with Advisory Neighborhood Commission 4B on November 25, 2013. The meeting consisted of a brief presentation on the project status and question and answer session. Approximately 50 participants attended.

A meeting was held with Advisory Neighborhood Commission Single Member District 4A01 on December 2, 2013. The meeting consisted of a brief presentation on the project status and question and answer session. Approximately 40 participants attended.

A meeting was held with Advisory Neighborhood Commission 4A on December 3, 2013. The meeting consisted of a brief presentation on the project status and question and answer session. Approximately 40 participants attended.

4.5 PUBLIC INFORMATION

A study-specific website (http://www.state.gov/ofm/property/fmc/index.htm) was developed and maintained throughout the study. The website consists of a background page, need for the proposed action, details of the master plan and EIS, contact information, and related links.

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8.0 INDEX

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